

SOLICITATION, OFFER, AND AWARD				1. Caption NCRIP Regional Wireless Broadband Network		Page of Pages 1 162	
2. Contract Number		3. Solicitation Number POTO-2006-R-0045		4. Type of Solicitation <input type="checkbox"/> Sealed Bid (IFB) <input checked="" type="checkbox"/> Sealed Proposals (RFP) <input type="checkbox"/> Sole Source <input type="checkbox"/> Emergency		5. Date Issued 8/7/2006	
				6. Type of Market <input type="checkbox"/> Open <input type="checkbox"/> Set Aside <input checked="" type="checkbox"/> Open Market with Set-Aside SBE Designated Category:			
7. Issued By: Office of Contracting and Procurement 441 4th Street, NW, Suite 700 South Washington, DC 20001 WILLIAM E. SHARP, 202-727-5274, william.sharp@dc.gov				8. Address Offer to: SAME AS BLOCK 7			
NOTE: In sealed bid solicitations "offer" and offeror" means "bid" and "bidder"							
SOLICITATION							
9. Sealed offers in original and <u> 9 </u> copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if hand carried to the bid counter located at <u> 441 4th Street, NW, Suite 703S, Bid Counter, Washington, DC </u> until <u> 2:00 PM EASTERN TIME </u> local time <u> 20-Sep-06 </u> (Hour) (Date)							
CAUTION: Late Submissions, Modifications and Withdrawals: See 27 DCMR chapters 15 & 16 as applicable. All offers are subject to all terms & conditions contained in this solicitation.							
10. For Information Contact		A. Name MARIBEL TORRES		B. Telephone (Area Code) 202 (Number) 727-8264 (Ext)		C. E-mail Address Maribel.Torres@dc.gov	
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OFFER							
within <u> 180 </u> calendar days from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified herein.							
13. Discount for Prompt Payment		10 Calendar days %		20 Calendar days %		30 Calendar days %	
		_____ Calendar days %					
14. Acknowledgement of Amendments (The offeror acknowledges receipt of amendments to the SOLICITATION):				Amendment Number		Date	
15A. Name and Address of Offeror				16. Name and Title of Person Authorized to Sign Offer/Contract			
15B. Telephone (Area Code) (Number) (Ext)				15 C. Check if remittance address is different from above - Refer to Section G		17. Signature	
						18. Offer Date	
AWARD (TO BE COMPLETED BY GOVERNMENT)							
19. Accepted as to Items Numbered			20. Amount		21. Accounting and Appropriation		
22. Name of Contracting Officer (Type or Print)			23. Signature of Contracting Officer (District of Columbia)			24. Award Date	



Government of the District of Columbia



Office of Contracting & Procurement

DC OCP-209(11-2004)



NCR Interoperability Program

Request for Proposal

National Capital Region Interoperability Wireless Broadband Networks

POTO-2006-R-0045

Date: August 7, 2006



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Section A.

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Section B. SUPPLIES OR SERVICES AND PRICE

B.1. Request for Proposal

The Government of the District of Columbia, Office of the Chief Technology Officer (OCTO) and Office of Contracting and Procurement (OCP), on behalf of several Agencies in the National Capital Region (NCR) is seeking a offeror who will provide a turn-key 700 MHz private Regional Wireless Broadband Network throughout the NCR.

B.2. Indefinite Delivery-Indefinite Quantity (IDIQ) Contract

The DC-OCP contemplates award of an Indefinite Delivery-Indefinite Quantity (IDIQ) contract. This is an IDIQ contract for the supplies or services specified, and effective for the period stated.

- a) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering Clause, G.1 of the contract. The Offeror shall furnish to the NCR, when and if ordered, the supplies or services specified in the Schedule B.4 and Section C, Descriptions/Specifications/Work Statement up to and including the maximum quantity as specified in section B.4 SCHEDULE. The DC-OCP will order minimum quantities as specified therein.
- b) There is no limit on the number of orders that may be issued. The DC-OCP may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- c) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Offeror within the time specified in the order. The contract shall govern the Offeror's and DC-OCP's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the offeror shall not be required to make any deliveries under this contract after the contract's period of performance.

B.3. PROPOSAL PRICING

B.3.1. IDIQ Contract

The DC-OCP contemplates award of an Indefinite Delivery-Indefinite Quantity (IDIQ) contract as further described below.

- a) The offeror shall provide detailed, firm-fixed proposal pricing for all CLIN line items specified in Section B.4.
- b) The offeror shall provide pricing information in its proposal with all equipment, assemblies, or services valued in excess of \$500 listed as a separate line item so that the DC-OCP can fully understand the cost drivers of each CLIN line item.



- c) The offeror shall provide equipment specifications and cut sheets for any individual items valued in excess of \$1000.
- d) The offeror shall provide separate discounted pricing for equipment quantities of 1, 10, 50, 100, etc. or other offeror specific breakpoints.
- e) The offeror proposed prices shall be no higher than prices proposed by the offeror to any other government entity and indicate OEM and where applicable, GSA schedules.
- f) All line item pricing shall be identified as either catalog list, discounted, GSA, OEM, other pricing/discounting category.
- g) If offeror selects the GSA schedule pricing it shall indicate the schedule by a unique identifying number. If pricing is derived from a contract awarded by a government within the Metropolitan Washington Council of Governments (MWCOC), the offeror shall provide unique identification for each contract such that the DC-OCP may identify and confirm
- h) The DC-OCP reserves the right to select one or more offerors; however, the DC-OCP has a preference for a single offeror to provide all base and optional components of the system.

B.4. SCHEDULE

- a) Base and Option pricing shall be provided and formatted as shown in the following tables of this section. Pricing of services shall indicate the number of hours required per skill set, and the skill set hourly rates.
- b) Any other major categories of work or equipment not listed here but identified by the offeror as necessary for completion of the work shall be provided in the response to this RFP.
- c) The offeror shall also provide pricing for recommended spare equipment and recommended test equipment in the response to this RFP
- d) The duration of each phase will be for one (1) year, starting from the contract award date.

B.4.1. BASE YEAR – Phase 1

The duration of this phase will be from the contract award date to month twelve (12).



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0001 C.3.2.1	Three Sector Antenna System ¹	\$ _____	1	\$ _____	80	\$ _____
CLIN 0002 C.3.2.2	Three Sector Wireless Base Station for In-Shelter Installation, Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services ¹	\$ _____	1	\$ _____	80	\$ _____
CLIN 0003 C.3.2.3	Three Sector Wireless Base Station Self-Contained w/o Shelter; Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services ¹	\$ _____	1	\$ _____	80	\$ _____
CLIN 0004 C.3.2.4	Optional Core Network System including Installation ²	\$ _____	0	\$ _____	2	\$ _____
CLIN 0005 C.3.2.5	Optional Core Network System including Installation w/o PDSN ²	\$ _____	0	\$ _____	1	\$ _____
CLIN 0006 C.3.2.6	Optional Microcell ¹	\$ _____	0	\$ _____	1,000	\$ _____
CLIN 0007 C.3.2.7	Optional Picocell ¹	\$ _____	0	\$ _____	10,000	\$ _____
CLIN 0008 C.3.2.8	Subscriber Terminals PC Cards ³	\$ _____	1	\$ _____	10,000	\$ _____
CLIN 0009 C.3.2.9	Subscriber Terminals RJ-45 Ethernet Devices ³	\$ _____	1	\$ _____	10,000	\$ _____
CLIN 0010 C.3.2.10	Subscriber Terminals MP555 Compatible ³	\$ _____	1	\$ _____	10,000	\$ _____
CLIN 0011 C.3.2.11	Subscriber Terminals PDA ³	\$ _____	1	\$ _____	10,000	\$ _____

¹ It is the desire to have pricing in increments of 1, 10, 50 and 100 to realize cost savings

² It is the desire to have pricing in increments of 1 and 10 to realize cost savings

³ It is the desire to have pricing in increments of 1, 10, 100 and 1000 to realize cost savings



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0012 C.3.2.12	Subscriber Terminals Toughbook Modem ¹	\$_____	1	\$_____	10,000	\$_____
CLIN 0013 C.3.2.13	Backhaul Engineering Design Services & Equipment ¹	\$_____	1	\$_____	80	\$_____
CLIN 0014 C.3.2.14	Optional per Site Acquisition, Leasing, Permitting & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0015 C.3.2.15	Optional per Site A&E, Electrical Engineering, Construction & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0016 C.3.2.16	Optional Operations and Maintenance - 1Year duration – Core System ²	\$_____	0	\$_____	2	\$_____
CLIN 0017 C.3.2.17	Optional Operations and Maintenance - 1Year duration – Base Station ¹	\$_____	1	\$_____	80	\$_____
CLIN 0018 C.3.2.18	Optional Emergency Portable Broadband System ¹	\$_____	0	\$_____	18	\$_____
CLIN 0019 C.3.2.19	Optional Backup Power (Generators & UPS) ¹	\$_____	0	\$_____	80	\$_____
CLIN 0020 C.3.2.20	Training	\$_____	1	\$_____	5	\$_____
CLIN 0021 C.3.2.21	Optional Extended Warranty	\$_____	1	\$_____	1	\$_____
CLIN 0022 C.3.2.22	Optional Billing System	\$_____	0	\$_____	1	\$_____

B.4.2. OPTION YEAR ONE – Phase 2

The duration of this phase will be from month thirteen (13) to month twenty-four (24).

Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
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Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0001 C.3.2.1	Three Sector Antenna System¹	\$_____	1	\$_____	80	\$_____
CLIN 0002 C.3.2.2	Three Sector Wireless Base Station for In- Shelter Installation, Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services¹	\$_____	1	\$_____	80	\$_____
CLIN 0003 C.3.2.3	Three Sector Wireless Base Station Self- Contained w/o Shelter; Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services¹	\$_____	1	\$_____	80	\$_____
CLIN 0004 C.3.2.4	Optional Core Network System including Installation²	\$_____	0	\$_____	2	\$_____
CLIN 0005 C.3.2.5	Optional Core Network System including Installation w/o PDSN²	\$_____	0	\$_____	1	\$_____
CLIN 0006 C.3.2.6	Optional Microcell¹	\$_____	0	\$_____	1,000	\$_____
CLIN 0007 C.3.2.7	Optional Picocell¹	\$_____	0	\$_____	10,000	\$_____
CLIN 0008 C.3.2.8	Subscriber Terminals PC Cards¹	\$_____	1	\$_____	10,000	\$_____
CLIN 0009 C.3.2.9	Subscriber Terminals RJ-45 Ethernet Devices³	\$_____	1	\$_____	10,000	\$_____
CLIN 0010 C.3.2.10	Subscriber Terminals MP555 Compatible³	\$_____	1	\$_____	10,000	\$_____
CLIN 0011 C.3.2.11	Subscriber Terminals PDA³	\$_____	1	\$_____	10,000	\$_____
CLIN 0012 C.3.2.12	Subscriber Terminals Toughbook Modem³	\$_____	1	\$_____	10,000	\$_____
CLIN 0013 C.3.2.13	Backhaul Engineering Design Services & Equipment¹	\$_____	1	\$_____	80	\$_____



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0014 C.3.2.14	Optional per Site Acquisition, Leasing, Permitting & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0015 C.3.2.15	Optional per Site A&E, Electrical Engineering, Construction & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0016 C.3.2.16	Optional Operations and Maintenance - 1Year duration – Core System ¹	\$_____	0	\$_____	2	\$_____
CLIN 0017 C.3.2.17	Optional Operations and Maintenance - 1Year duration – Base Station ¹	\$_____	1	\$_____	80	\$_____
CLIN 0018 C.3.2.18	Optional Emergency Portable Broadband System ¹	\$_____	0	\$_____	18	\$_____
CLIN 0019 C.3.2.19	Optional Backup Power (Generators & UPS) ¹	\$_____	0	\$_____	80	\$_____
CLIN 0020 C.3.2.20	Training	\$_____	1	\$_____	5	\$_____
CLIN 0021 C.3.2.21	Optional Extended Warranty	\$_____	1	\$_____	1	\$_____
CLIN 0022 C.3.2.22	Optional Billing System	\$_____	0	\$_____	1	\$_____

B.4.3. OPTION YEAR TWO – Phase 3

The duration of this phase will be from month twenty-five (25) to month thirty-six (36).

Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0001 C.3.2.1	Three Sector Antenna System ¹	\$_____	1	\$_____	80	\$_____



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0002 C.3.2.2	Three Sector Wireless Base Station for In- Shelter Installation, Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services ¹	\$_____	1	\$_____	80	\$_____
CLIN 0003 C.3.2.3	Three Sector Wireless Base Station Self- Contained w/o Shelter; Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services ¹	\$_____	1	\$_____	80	\$_____
CLIN 0004 C.3.2.4	Optional Core Network System including Installation ²	\$_____	0	\$_____	2	\$_____
CLIN 0005 C.3.2.5	Optional Core Network System including Installation w/o PDSN ²	\$_____	0	\$_____	1	\$_____
CLIN 0006 C.3.2.6	Optional Microcell ¹	\$_____	0	\$_____	1,000	\$_____
CLIN 0007 C.3.2.7	Optional Picocell ¹	\$_____	0	\$_____	10,000	\$_____
CLIN 0008 C.3.2.8	Subscriber Terminals PC Cards ¹	\$_____	1	\$_____	10,000	\$_____
CLIN 0009 C.3.2.9	Subscriber Terminals RJ-45 Ethernet Devices ³	\$_____	1	\$_____	10,000	\$_____
CLIN 0010 C.3.2.10	Subscriber Terminals MP555 Compatible ³	\$_____	1	\$_____	10,000	\$_____
CLIN 0011 C.3.2.11	Subscriber Terminals PDA ³	\$_____	1	\$_____	10,000	\$_____
CLIN 0012 C.3.2.12	Subscriber Terminals Toughbook Modem ³	\$_____	1	\$_____	10,000	\$_____
CLIN 0013 C.3.2.13	Backhaul Engineering Design Services & Equipment ¹	\$_____	1	\$_____	80	\$_____



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0014 C.3.2.14	Optional per Site Acquisition, Leasing, Permitting & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0015 C.3.2.15	Optional per Site A&E, Electrical Engineering, Construction & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0016 C.3.2.16	Optional Operations and Maintenance - 1Year duration – Core System ¹	\$_____	0	\$_____	2	\$_____
CLIN 0017 C.3.2.17	Optional Operations and Maintenance - 1Year duration – Base Station ¹	\$_____	1	\$_____	80	\$_____
CLIN 0018 C.3.2.18	Optional Emergency Portable Broadband System ¹	\$_____	0	\$_____	18	\$_____
CLIN 0019 C.3.2.19	Optional Backup Power (Generators & UPS) ¹	\$_____	0	\$_____	80	\$_____
CLIN 0020 C.3.2.20	Training	\$_____	1	\$_____	5	\$_____
CLIN 0021 C.3.2.21	Optional Extended Warranty	\$_____	1	\$_____	1	\$_____
CLIN 0022 C.3.2.22	Optional Billing System	\$_____	0	\$_____	1	\$_____

B.4.4. OPTION YEAR THREE – Phase 4

The duration of this phase will be from month thirty-seven (37) to month forty-eight (48).

Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0001 C.3.2.1	Three Sector Antenna System ¹	\$_____	1	\$_____	80	\$_____



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0002 C.3.2.2	Three Sector Wireless Base Station for In- Shelter Installation, Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services¹	\$_____	1	\$_____	80	\$_____
CLIN 0003 C.3.2.3	Three Sector Wireless Base Station Self- Contained w/o Shelter; Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services¹	\$_____	1	\$_____	80	\$_____
CLIN 0004 C.3.2.4	Optional Core Network System including Installation²	\$_____	0	\$_____	2	\$_____
CLIN 0005 C.3.2.5	Optional Core Network System including Installation w/o PDSN²	\$_____	0	\$_____	1	\$_____
CLIN 0006 C.3.2.6	Optional Microcell¹	\$_____	0	\$_____	1,000	\$_____
CLIN 0007 C.3.2.7	Optional Picocell¹	\$_____	0	\$_____	10,000	\$_____
CLIN 0008 C.3.2.8	Subscriber Terminals PC Cards¹	\$_____	1	\$_____	10,000	\$_____
CLIN 0009 C.3.2.9	Subscriber Terminals RJ-45 Ethernet Devices³	\$_____	1	\$_____	10,000	\$_____
CLIN 0010 C.3.2.10	Subscriber Terminals MP555 Compatible³	\$_____	1	\$_____	10,000	\$_____
CLIN 0011 C.3.2.11	Subscriber Terminals PDA³	\$_____	1	\$_____	10,000	\$_____
CLIN 0012 C.3.2.12	Subscriber Terminals Toughbook Modem³	\$_____	1	\$_____	10,000	\$_____
CLIN 0013 C.3.2.13	Backhaul Engineering Design Services & Equipment¹	\$_____	1	\$_____	80	\$_____



Contract Line Item No. (CLIN)	Item Description	Price Per Unit	Quantity Minimum	Minimum Total Price	Quantity Maximum	Maximum Total Price
CLIN 0014 C.3.2.14	Optional per Site Acquisition, Leasing, Permitting & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0015 C.3.2.15	Optional per Site A&E, Electrical Engineering, Construction & Management ¹	\$_____	0	\$_____	80	\$_____
CLIN 0016 C.3.2.16	Optional Operations and Maintenance - 1Year duration – Core System ¹	\$_____	0	\$_____	2	\$_____
CLIN 0017 C.3.2.17	Optional Operations and Maintenance - 1Year duration – Base Station ¹	\$_____	1	\$_____	80	\$_____
CLIN 0018 C.3.2.18	Optional Emergency Portable Broadband System ¹	\$_____	0	\$_____	18	\$_____
CLIN 0019 C.3.2.19	Optional Backup Power (Generators & UPS) ¹	\$_____	0	\$_____	80	\$_____
CLIN 0020 C.3.2.20	Training	\$_____	1	\$_____	5	\$_____
CLIN 0021 C.3.2.21	Optional Extended Warranty	\$_____	1	\$_____	1	\$_____
CLIN 0022 C.3.2.22	Optional Billing System	\$_____	0	\$_____	1	\$_____

Section C. SPECIFICATIONS AND WORK STATEMENT

C.1. SCOPE

- The National Capital Region (“NCR”), defined as the District of Columbia and the counties of Loudoun, Fairfax, Prince William, Arlington, Montgomery, Prince George’s, and enclosed city governments, is seeking a offeror to design, construct,



manage and maintain an interoperable regional wireless broadband data network (RWB) for use by Public Safety agencies. This project is a component of a larger program aiming at establishing data interoperability among all regional public safety agencies. The wireless component of this program seeks to build a wireless broadband network of networks enabling each participating jurisdiction to operate and augment its system and maintain the same control and sovereignty as NCR jurisdictions currently have with Land Mobile Radio networks. The system is required to utilize the 700 MHz public safety spectrum. The National Capital Region is currently seeking waivers of FCC rules that limit 700 MHz operations to wideband solutions and enables broadband operations. The DC-OCP reserves the right to cancel this procurement at will including, but not limited to, securing the appropriate FCC approvals to operate the system.

- b) Due to funding considerations, the solution will be constructed in multiple phases. Phases will be determined due to a variety of factors including the availability of funds and site readiness. Additionally, core network elements may not be deployed in every jurisdiction initially and a shared configuration is acceptable. However, each jurisdiction must be able to fully control its infrastructure and subscribers from within their respective jurisdictions.
- c) This RFP sets forth term and conditions, technical requirements, scopes of work and operational constraints for the implementation of the infrastructure to support the system.

C.1.1. Definitions

1xEvDO	Evolution to Data Only
1xRTT	Radio Transmission Technology
AAA	Authentication, Authorization, Accounting
ATP	Acceptance Test Plan
AVL	Automatic Vehicle Location
C/I	Carrier to Interference ratio
CDMA	Code Division Multiple Access
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative
DC	District of Columbia
DDOT	District Department of Transportation
DEH	Data Exchange Hub
DPW	Department of Public Works
Eb/No	Ratio of Energy per Bit to Noise Power Spectral Density
EDGE	Enhanced Data for Global Evolution



F/EMS	Fire and Emergency Medical Services
GPRS	General Packet Radio Service
GPS	Global Positioning System
HSDPA	High Speed Downlink Packet Access
MDC	Mobile Data Computer
MDT	Mobile Data Terminal
MPD	Metropolitan Police Department
MTBF	Mean Time Between Failure
MTTR	Mean Time to Repair
NCR	National Capital Region
NOC	Network Operations Center
OCF	Office of Contracting and Procurement
OCTO	Office of the Chief Technology Officer – District of Columbia
ODC	OCTO Data Center
OUC	Office of Unified Communications
PSA	Public Service Areas
PSCC	Public Safety Communications Center
QOS	Quality of Service
RWBN	Regional Wireless Broadband Network
SDLC	System Development Life Cycle
SLA	Service Level Agreement
SNMP	Simple Network Management Protocol
SNR	Signal to Noise Ratio
UCC	Unified Communications Center
VPN	Virtual Private Network
WEP	Wired Equivalent Protocol
WPA	WiFi Protected Access

C.2. Background

- a) The National Capital Region consists of 18 jurisdictions; the District of Columbia and the surrounding counties of Loudoun, Fairfax, Prince William, Arlington, Montgomery, Prince George's, and enclosed city governments
- b) A listing of the participating jurisdictions and information about their geographic size and population of each is contained in Table 1 below and depicted on the following map; Figure 1: *The National Capital Region*. The objective is for an area of coverage



reliability for 95% of the National Capital Region, at the data rates described in the following sub-sections.



Figure 1: *The National Capital Region*

C.2.1. Schedule and Design

- a) The implementation of the NCR Network will take place over several phases. In order to accommodate purchasing flexibility at the contracting stage, offerors are required to provide designs and coverage maps for the entire NCR as well as for each individual entity. The design shall leverage the benefit of a network of networks (i.e., adjacent jurisdictions can benefit from coverage from their neighbors).
- b) There may occasion a situation whereby an installation may take longer to deploy than others within a given Phase; this may be due to leasing and/or permitting issues. Upon acceptance by the COTR, exclusion zones shall be defined jointly with the offeror. The exclusion zones are areas excluded from the throughput and reliability requirements. However, it shall be noted that there are no exclusion zones for the final design that shall cover the entire National Capital Region. The offeror shall be responsible for meeting the required performance levels for the proposed final design.



- c) Upon notice of a deployment schedule and approved design, the offeror shall have the capacity to deploy and fully commission all infrastructure assets within 60 days of Notice-To-Proceed.

C.3. Requirements

C.3.1. General Requirements

Mandatory system attributes shall include:

- a) The system shall be required to operate in the 700 MHz public safety band, in the channel space currently allocated to wide band channels. The final award of this contract is conditional to the NCR's effort to gain the release of this spectrum by the FCC and the finalization of its clearing of current encumbers.
- b) The system shall use a standardized technology, such that the NCR has the flexibility to select fixed and mobile equipment from at least six (6) vendors in future procurements, and the selected offeror's fixed and mobile equipment shall be completely interoperable with these vendors.
- c) The system shall require no more than 1.25 MHz of spectrum per channel while meeting all specifications, and be able to reuse that same 1.25 MHz (or less) channel at each transceiver in the system;
- d) The Targeted Coverage Area (TCA) shall be the jurisdictions that make up the National Capital Region as listed in Table 1.
- e) Throughput within the Targeted Coverage Area (95th Percentile): The system shall deliver high-speed data communications of at least 306 kbps channel rate and 225 kbps user rate at the 95th percentile for the forward link (base to mobile), and 153 kbps channel rate and 115 kbps user rate at the 95th percentile for the reverse link (mobile to base). The offeror shall achieve this performance using antennas placed inside test vehicle and mounted directly to a notebook computer, PC Card, or equivalent (no cabling with internal or external antennas will be permitted);
- f) Throughput within the Targeted Coverage Area (50th Percentile): The system shall deliver median throughput per transceiver in excess of 1 Mbps downstream and 600 kbps upstream at the 50th percentile.
- g) The network shall be capable of providing class of service provisioning that will allow the system manager to effectively rate limit users by user and by application;
- h) The network shall be capable of supporting Multicast;
- i) The offeror shall provide the aggregated throughput per site;
- j) The offeror shall provide the loading performance, end to end; in particular over the air interface in both the forward and reverse links;



- k) The system shall include all the network equipment necessary to process the communications end-to-end and capable of interconnection with the NCR's jurisdictions' WANs;
- l) All equipment shall include a minimum one year warranty with optional extended warranty except as otherwise noted;
- m) Each jurisdiction of the NCR shall be able to manage access and services for its own users;
- n) Each jurisdiction of the NCR shall be able to set roaming access onto commercial and/or other private networks for its own users;
- o) That system shall support high mobility over a wide coverage area with roaming among all NCR transceivers irrespective of the quantity and location of network core elements that support those transceivers. The system shall also support the ability to interface with other public safety systems and support autonomous roaming with these systems (including authentication with State and Federal agencies);
- p) Visiting users shall be able to access their home applications when roaming. Visiting users will be able to share data with local users and access local applications as per jurisdictions agreements;
- q) The system shall prevent unauthorized access, use and interception;
- r) The system capacity shall be easily scalable by supporting N=1 frequency reuse; simulcast operations will not be accepted;
- s) It is the preference of the NCR that there is no loss of packets during site-to-site or transceiver-to-transceiver transitions either within a jurisdiction or between jurisdictions. If packet losses during transitions do occur the offeror shall identify all circumstances and shall quantify the packet loss;
- t) The system shall be able to support the applications listed in the Section C.3.1.2 of this RFP;
- u) The system shall use as many of NCR's qualified existing radio sites to reduce cost (qualified offeror can receive the locations of these sites upon submission and approval of the Contractor Experience Questionnaire Form (please see Section J.7.). It is the preference of the NCR that the existing public safety sites are given the highest priority for use in the proposed wireless broadband network. A lesser priority shall be given to properties and structures owned by local, state and federal governments respectively. As a last option, the offeror may propose additional private sites to meet the coverage and throughput requirement of this RFP. It is expected that the private sites shall be a subset of the those referred to in Appendix 1 A.1;
- v) The offeror shall insure that the installation of the radio site equipment is compliant to public safety's de-facto standard; Motorola's "**R56 Standards and Guidelines for Communications Sites**" (Appendix 4) ;



- w) The Radio Access Nodes (base stations) shall be equipped with Ethernet interface to enable easy configuration and installation, as well as take advantage of the higher data rates offered by the broadband technologies;
- x) The wireless broadband network shall provide N+1 redundancy for all system components. If not possible; the offeror shall identify any and all single points of failure;
- y) All subscriber devices shall be capable of roaming on a commercial cellular nationwide system, with 3G data capabilities, using open, standard air interfaces. At a minimum, this shall include dual-band 700 MHz and 1900 MHz support, however, 700 MHz, 800MHz, and 1900 MHz in all devices, is desired. Offerors shall indicate when they can fully support tri-band operations;
- z) The offeror shall propose a roadmap that will migrate the technology to a flat all IP network architecture, utilizing a base station with full routing capability, and requiring minimal central core elements with a target capability to be able to create ad-hoc incident networks that can be detached from the core network. The offeror shall provide contractible dates on the equipment's availability, and shall migrate to this platform at no cost to the NCR.

C.3.1.1. Interoperability Requirements

- a) Static IP Address: Some applications require a single static non-changing IP address. The network shall support static non-changing IP addresses for all client devices. Those users will be able to use their home applications when roaming to other jurisdictions;
- b) Security: The network shall require Authentication, Authorization, Accounting (AAA) for all users on the network;
- c) Encryption: The network shall support voice and data encryption type I, type II, and AES FIPS140-1 and FIPS 140-2;
- d) IPSec: The network shall enable IPSec to provide a VPN tunnel and encryption from the client device to the servers inside the agency/jurisdiction firewall;
- e) Mobile IP: The network shall provide standards based Mobile IP v.4 (upgradeable to IP v.6 when available). This upgrade shall take place at no cost to the NCR.
- f) The network shall provide the capability to support session persistence (i.e. VPN connectivity) so that the client application shall remain connected to the server and not be required to reauthorize or re-authenticate when switching from one cell to another or from the one communications network to another. This applies across NCR's networks or when switching from NCR's network to another private or commercial network
- g) Routing: The network shall provide the ability to route a roaming user back to the home agent/network, to the appropriate applications servers;



- h) Roaming: The network shall provide local and roaming users the ability to access and share data on local networks, while ensuring resource access control by the local jurisdiction, and maintaining remote and local data and applications security;
- i) Application Interoperability: The network shall provide different agency applications the ability to share data via a direct connection or Data Exchange Hub (DEH);

C.3.1.2. Existing Applications

C.3.1.2.1 As mentioned in the Statement of Work, there are up to eighteen (18) jurisdictions that require interoperability in the NCR Regional Wireless Broadband Network (RWBN). All agencies within these jurisdictions currently have existing applications running over existing wireless networks. The vendor shall provide the necessary technical support that will assist the porting over of the applications to the new NCR Regional Wireless Broadband Network.

- a) Automatic Vehicle Location;
- b) Computer Aided Dispatch;
- c) Digital Imaging;
- d) E-mail;
- e) Mapping/Geographic Information System;
- f) Remote Database Access;
- g) Report Management System;
- h) Text Messaging;
- i) Still Images (photos);
- j) Telemetry and remote diagnostics;
- k) Video;

C.3.1.2.2 Some of the agencies in the NCR jurisdictions have implemented some or most of the above applications, while others are in the process of implementing these applications. The NCR network design and implementation shall provide a means for all existing applications to operate on the new NCR RBWN.

C.3.1.3. QoS

The network shall provide QoS on a per user basis at the subscriber device level (per IP address), as well as on a per application basis and a geographical location basis (at least on a per sector basis);

C.3.1.4. Band Operation

The system shall be required to operate in the 700 MHz public safety band, in the channel space currently allocated to wide band channels. The final award of this contract is conditional to the NCR's effort to gain the release of this spectrum by the FCC and the finalization of its clearing of current encumbers.

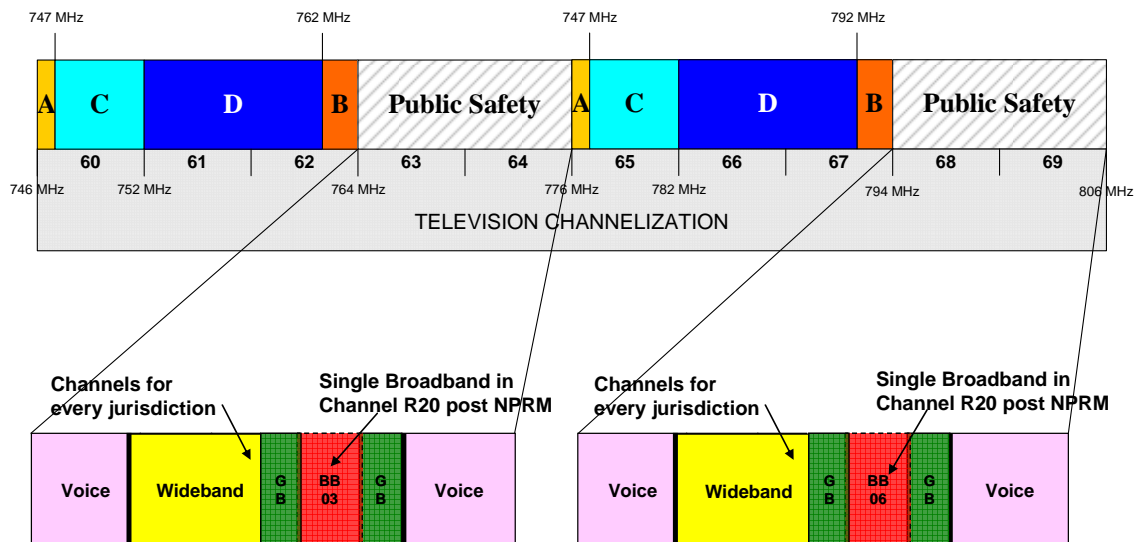


Figure 2 - Public Safety Band

C.3.1.5. Spectrum Requirements

The constraints regarding the channel-bandwidth of the proposed technology are:

- The initial system shall fit within the spectrum allocated to public safety wide band channels (767 MHz to 773 MHz for base to mobile transmission, 797 MHz to 803 MHz for mobile to base transmission);
- The proposed system shall use a channel bandwidth no greater than 1.25MHz;
- The proposed system shall fulfill Out-of-Band Emissions requirements specified by the FCC in part 90. The offeror shall demonstrate that both base station and mobile units meet the FCC requirements;
- The system shall be capable of operations anywhere within 762.5 MHz to 776 MHz for base to mobile transmission and 792.5 MHz to 806 MHz for mobile to base transmission in the event that FCC rule changes move the wideband/broadband spectrum. The system shall be capable of channel assignment in 30 kHz increments within that band.
- Narrowband voice and wideband data spectrums shall be fully protected while respecting NPSTC's recommendation for minimum acceptable guard band

C.3.1.6. Radio Control Subsystem

- Operational control of all radio transceivers, at all radio sites, as well as performance of all system administration functions, shall be able to be performed from the main radio control site.



- b) The system shall allow communications with mobile terminals moving at velocities up to 150 miles per hour.
- c) The offeror shall provide all necessary radio equipment and network control and monitoring equipment necessary to meet technical requirements described in this document.

C.3.1.7. Security Plan Requirements

- a) The offeror shall develop and implement a security plan that is approved by COTR
- b) The Security Plan shall achieve the following objectives:
 - 1. The network security plan shall ensure that authorized and authenticated users are predefined to connect to the network;
 - 2. The network security plan shall ensure that administrative and operational data integrity used by agency users and systems are not exposed to unauthorized viewers;
 - 3. The network shall support IPSec and other VPN technologies for data security;
 - 4. The network shall support data encryption and be Type I, Type II, AES FIPS 140-1 and AES FIPS 140-2 compliant
 - 5. The security plan shall insure the availability of the network and demonstrate resilience against denial of service attacks via the consumption of scarce resources or the alteration of configuration information or network components.

C.3.2. CLIN Requirements

C.3.2.1. CLIN 0001 – Three Sector Antenna System

The antenna system shall meet the following requirements:

- a) Utilizes three or more antennas to support three or more sectors;
- b) Utilizes waveguide to connect antennas to base station equipment – the NCR has a preference for smaller, easier to install waveguide if possible;
- c) Minimizes size and quantity of antennas by utilizing cross polarized antennas for diversity;

C.3.2.2. CLIN 0002 –Three Sector Base Station for Indoor Installation

The base station equipment with antenna system described in Section C.3.2.1. (CLIN 0001) shall meet the following requirements:

- a) Demodulates and modulates wireless signals using standardized air protocols to achieve connections with mobile users and interfaces with core system equipment;



- b) Provides interconnection to antenna systems;
- c) Includes assisted GPS capabilities that enables geo-location inside buildings with at least 10 dB building attenuation;
- d) Includes lightning protection systems to prevent damage to electronic equipment;
- e) Provides Internet Protocol communications channels over the air;
- f) Has three sectors, or coverage zones that can use the same 1.25 MHz frequency without simulcasting among sectors. Additionally, the system shall support expansion to up to three 1.25 MHz channel per sector
- g) Delivers peak channel rates of at least 9.3 Mbps per site using 1.25 MHz and 27.9 Mbps per site using 3.75 MHz;
- h) Shall support 27.9 Mbps using no more than two 7' 19" racks;
- i) The offeror shall assume a 110 Volt power supply and convert if necessary to the required base station power source;
- j) The offeror shall, inclusive to the per site price, provide all engineering services, including a preliminary design, design reviews, final design, and as built design;
- k) The offeror shall, inclusive to the per site price, provide overall project management for all services associated with commissioning and the acceptance testing of each base station;
- l) The offeror shall install and perform acceptance testing of the base station;
- m) The offeror shall provide optimization testing required to insure that the technical requirements of the proposed system and this RFP have been met;
- n) The offeror shall provide shipping to the base station location;

C.3.2.3. CLIN 0003 –Three Sectored Base Station Outdoor Installation

The outdoor three sectored base station shall meet the following requirements:

- a) All requirements found in CLIN 0001;
- b) A fully weatherized cabinet (GR487 Core) and UL50 compliant;
- c) All climactic equipment necessary to maintain the offeror's required electronic systems temperature while outdoor temperature varies between -40 to +46 degrees Centigrade;
- d) An uninterruptible power supply that shall provide at least 30 minutes of backup power for all base station electronics;

C.3.2.4. CLIN 0004 – Core Network Systems

- a) The offeror shall provide pricing for complete turn-key Core Network System to include installation, acceptance testing, and re-homing (or parenting);



- b) The offeror shall provide the necessary support with regard to the IP network subsystem (IP stack and addressing) and the porting over of NCR applications to the network;
- c) The network management system shall provide an airtime summary report that lists by user group the number of calls and the amount of data used;
- d) The network management system shall provide a transaction summary which lists by application type, the user group involved and the terminals involved in the call. The report history period shall be user selectable between 15 minutes and 45 days. The data interval shall be user selectable between 1 and 60 minutes;
- e) The network management system shall provide functionality for automatic data log archiving. The automatic archive scheduling shall be user selectable for intervals beyond a minimum of 45 days.
- f) The network management system shall provide a report that shows the total data volume per hour;
- g) The network management system shall provide a report of any radio link failures (dropped calls, or call setup failures);
- h) The network shall provide priority access control for at least 8 levels of priority and shall be separately assignable to individuals, user groups, or applications;
- i) The highest priority level shall be defined as emergency priority;
- j) The network shall provide password protection and security from unauthorized users;
- k) The network shall provide standard and ad-hoc reporting capabilities;
- l) Each core network system shall meet the following requirements:
 - 1. Control the process and functions of a minimum 50 base stations;
 - 2. Provide the interface into the NCR Internet cloud, allowing connections to Municipal Wide Area Networks and the Internet;
 - 3. Controls the seamless transition of all subscriber devices from base station to base station and base stations controlled by other core network systems (i.e., hub to hub and switch to switch handoffs);
 - 4. Controls authentication, authorization, and accounting (AAA) functions and allows for federated AAA functions with other core network systems (be they other NCR systems or other super-regional commercial and/or cellular systems)
 - 5. Provides extensive Operations and Maintenance Functions including, but not limited to: alarming (SNMP based), Network control (including all QoS requirements provided herein), the ability to create user control groups to enable each municipality to control the network elements that fall within their jurisdiction, provides extensive engineering and operations reporting to indicate sub-optimal performance and congestion situations.



6. Provide redundancy for all critical elements of the core network system. Redundancy should support geographic separation such as the central core being located in jurisdiction A with redundant critical elements located in jurisdiction B.

C.3.2.5. CLIN 0005 – Optional Core Network Systems without PDSN

- a) The offeror shall fulfill all of the requirements from Section C.3.2.4 (CLIN 0004) with the exception of adding a PDSN; The offeror shall utilize the existing PDSN from Washington DC's WARN network;

C.3.2.6. CLIN 0006 –Microcell

Each microcell shall meet the following requirements:

- b) All the requirements from Section C.3.2.3 (CLIN 0002)with the following exceptions:
 1. Only one transceiver is required supporting at least 3.1 Mbps;
 2. No engineering and design services required for choosing the placement and coverage
 3. A physical form factor that does not exceed 36" in any dimension and does not exceed 200 lbs;
 4. Shall have a peak transmission power of at least five (5) Watts minimum;
- c) The offeror shall, inclusive to the per unit price, provide overall services associated with commissioning and the acceptance testing of each base station;
- d) The offeror shall assess the feasibility of installing a microcell device on a public safety vehicle. It is intended that the device shall be used to provide enhanced in-building coverage and/or capacity. It is preferable that the device use the existing network to backhaul to the core network. The secondary preference would be to use a separate 700 MHz channel, or a 4.9GHz solution or reasonable equivalent respectively.

C.3.2.7. CLIN 0007 –Picocell

Each picocell shall meet the following requirements:

- a) All the requirements from Section C.3.2.3 (CLIN 0002)with the following exceptions:
 1. Only one transceiver is required supporting at least 3.1 Mbps;
 2. No engineering and design services required for choosing the placement and coverage
 3. A physical form factor that does not exceed 10" in any dimension and does not exceed 10 lbs.
 4. Can be installed on a wall, standard telephone or light pole.



- b) Shall have a peak transmission power of at least one (1) Watt minimum;
- c) The offeror shall assess the feasibility of installing a microcell device on a public safety vehicle. It is intended that the device shall be used to provide enhanced in-building coverage and/or capacity. It is preferable that the device can also use the 700 MHz network or backhaul to the core network. The secondary preference would be to use a separate 700 MHz channel, or a 4.9GHz solution or reasonable equivalent respectively.

C.3.2.8. CLIN 0008 – Subscriber Terminals PC Cards

The offeror shall provide the following:

- a) A standard PCMCIA device capable of interface into notebook, tablet, personal digital assistant, and desktop personal computing devices;
- b) Devices must meet all PCMCIA requirements including heat, size and etc.;
- c) The terminals shall meet the requirements described in the technical specifications section;
- d) The offeror shall describe the various available types of terminals and their respective technical characteristics. These characteristics are physical (size, weight, etc.) as well as electrical (RF sensitivity, RF selectivity, RF transmit power, etc.);
- e) The offeror shall provide mobile antennas that meet public safety requirements which are a low profile radome tri-band antenna with 700/800/1900 MHz and an active gain GPS antenna;
- f) The offeror shall provide software drivers for Windows 98, 2000, NT, XP, CE, and Linux operating systems and simple installation software;
- g) The device shall support geolocation or location based services and shall include an embedded GPS receiver;
- h) The prices shall include all shipping and handling costs.

C.3.2.9. CLIN 0009 – Subscriber Terminals RJ-45 Ethernet Devices

The offeror shall provide the following:

- a) A self contained system with power supply, antenna, modem, and RJ-45 Ethernet interface
- b) Provides any computing device with an IP address via standard RJ-45 Ethernet
- c) Battery backup to support 30 minutes of continuous operation
- d) The device shall support an auto power function that automatically activates the device as soon as power is supplied and not require manual power activation
- e) The device shall support geolocation or location based services



- f) The offeror shall provide information as to how or whether the device is sufficiently ruggedized for use within public safety vehicles
- g) The prices shall include shipping, installation, and testing for NCR users who exercise this option

C.3.2.10. CLIN 0010 – Subscriber Terminals MP555 Compatible

The offeror shall provide subscriber terminals that shall:

- a) Replaces the existing MP555 modems cards⁴ or provides a replacement system to the MP555 that has the same functionality, specifications, and interfaces (power, data ports, I/O, antenna connectors etc.) as the MP555;
- b) If offeror proposes replacement modem card for the existing NCR MP555s, pricing shall include installation and testing of new modem cards in existing NCR MP555s;
- c) The device shall support geolocation or location based services;
- d) The offeror shall provide information as to how or whether the device is sufficiently ruggedized for use within public safety vehicles;
- e) The offeror shall provide turnkey pricing for this option, including the shipping, installation, and testing of NCR users who exercise this option;
- f) If the offeror propose a full replacement system, the replacement system shall have an RJ45 ethernet interface;
- g) The MP555 wireless modem upgrade or replacement unit shall have analog and digital input and output (I/O) with the following requirements;
 - 1. At least two digital inputs
 - 2. At least two configurable input/outputs
 - 3. At least 4 analog inputs

C.3.2.11. CLIN 0011 – Subscriber Terminals PDA

The offeror shall provide the following:

- a) A personal digital assistant with integrated 700 MHz broadband modem capable of operating on the proposed system;
- b) Operates using either the Windows, Palm or Linux families of operating systems;
- c) Has equivalent capabilities to the Palm Treo 700;
- d) The device shall support geolocation or location based services inside buildings including a 10 dB building penetration;

⁴ The MP555 used throughout the NCR is a 1xRTT modem system that includes a wireless modem, GPS receiver, and hardware and software components that enable position transmission to Computer Aided Dispatch and similar tracking systems. It is the NCR preference that the offeror be able to provide the modem upgrade (from 800/1900 1xRTT to 700 MHz private broadband).



- e) Ruggedization is preferable, but not required;
- f) The prices shall include shipping, installation, and testing for NCR users who exercise this option;
- g) A roadmap for future utilization of VOIP, Push to Talk and fully duplexed video streaming with the PDAs
- h) The device shall be of an open architecture with common application programming interfaces such that the basic functionality (voice, streaming video, GPS, etc.) can be manipulated and/or controlled by third party client applications;

C.3.2.12. CLIN 0012 – Panasonic Toughbook with Embedded Modem

The offeror shall provide the following:

- a) The Panasonic Toughbook, a popular ruggedized notebook computer in the NCR, has a cellular modem option that can be factory installed with a variety of commercial technologies and frequencies. The NCR requires that the offeror provide an option to upgrade its Toughbook computers to enable them to operate on the proposed 700 MHz system;
- b) The embedded solution shall provide comparable results to existing 800/1900 MHz solutions available in the Panasonic Toughbook, including, but not limited to, an integrated antenna that supports the 700 MHz band;
- c) The prices shall include the shipping, installation, upgrade, and testing for NCR users who exercise this option;

C.3.2.13. CLIN 0013 – Backhaul Engineering Design Services & Equipment

- a) The backhaul architecture shall not have any single point of failure;
- b) The offeror shall provide a redundant wireless and wireline backhaul utilizing to the fullest extent possible existing NCR's properties and facilities including NCR-owned/leased copper, fiber and microwave facilities. The NCR will, where possible, make every effort to provide sufficient access and capacities to the offeror for use of NCR-owned and operated facilities; however, the offeror is responsible for providing infrastructure and backhaul to the extent it is not being provided by the NCR. Also, if there is no backhaul at the site, the use of 4.9 GHz public safety band shall be thoroughly investigated as the preferred backhaul solution;
- c) The offeror shall provide, install and commission all the necessary backhaul equipment.
- d) Availability of backhaul options at existing public safety or municipal owned sites will be described in the materials outlined in Appendix 1, A.1;



C.3.2.14. CLIN 0014 – Optional per Site Acquisition, Leasing, Permitting & Management Services

The offeror shall provide the following services for the deployment of NCR radio base station sites:

- a) The offeror shall provide optional acquisition, leasing permitting, and management services required to secure structures for the use of the wireless broadband network; priced on a per-site, fixed price basis;
- b) The availability of existing public safety sites in terms of acquisitions, leasing and permitting will be described in the materials outlined in Appendix 1, A.1;

C.3.2.15. CLIN 0015 – Optional A&E, Electrical Engineering, & Construction Related Services

The offeror shall provide the following services for the deployment of NCR radio base station sites:

- a) The offeror shall provide optional architecture and engineering, electrical engineering, construction and other services required for the complete installation of the base station priced on a per-site, fixed price basis.
- b) The descriptions of the existing public safety structures are provided in the materials outlined in Appendix 1, A.1;

C.3.2.16. CLIN 0016 – Optional Operations & Maintenance – One Year – Core System

- a) For each core system deployed, the NCR shall have the option to contract with the offeror, operations and maintenance costs for a period of 12 months;
- b) Offeror shall propose methods to address sub-year contract periods, including month-to-month;
- c) Offeror shall provide on-site support 24/7/365;
- d) Offeror shall address and correct any network outage within two (2) hours, four (4) hours for medium and shall correct any minor alarms within eight (8) hours;
- e) Offeror shall provide weekly reports indicating the network performance; i.e. capacity, congestion or other key indicators. Offeror shall indicate the minimum performance level and the target performance level for the system and shall demonstrate in its weekly submissions the steps it is taking to achieve the target performance. Weekly reports shall also provide a historical trend for comparison;
- f) Also included are preventative maintenance measures. Offeror shall propose its comprehensive maintenance plan, both preventative and reactive;

**C.3.2.17. CLIN 0017 – Optional Operations & Maintenance – One Year – Base Station**

- a) For each base station deployed, the DC-OCP shall have the option to contract with the offeror, operations and maintenance costs for a period of 12 months;
- b) Offeror shall propose methods to address sub-year contract periods, including month-to-month;
- c) Offeror shall provide local support 24/7/365. The offeror shall provide a staffing plan to assure rapid response to network issues. The plan shall also address, at a minimum, quarterly preventative maintenance to be executed within the pricing of this item;
- d) Offeror shall address and correct any network outage within two (2) hours, medium alarms within four (4) hours and shall correct any minor alarms within eight hours;
- e) Offeror shall provide weekly reports indicating the network performance; i.e. capacity, congestion or other key indicators. Offeror shall indicate the minimum performance level and the target performance level for the system and shall demonstrate in its weekly submissions the steps it is taking to achieve the target performance. Weekly reports shall also provide a historical trend for comparison;
- f) The offeror shall propose its comprehensive maintenance plan, both preventative and reactive in response to this RFP;

C.3.2.18. CLIN 0018 – Optional Emergency Portable Broadband System

The Emergency Portable Broadband System is a self-contained wireless broadband network that can be mounted in command vehicles and provide comprehensive communication service even in the event of a failure or lack of coverage of the primary wireless broadband network. This system is also a potential solution for governments that do not have a permanent wireless broadband system, but want to have emergency services.

- a) The Emergency Portable Broadband System shall interface with the permanent core system, fit in 8U 19" rack, be able to sustain vehicular conditions, and be able to be operated by non-technical emergency personnel;
- b) The Emergency Portable Broadband System shall be capable of interface into any IP network including satellite, wired ethernet and terrestrial cellular

C.3.2.19. CLIN 0019 – Optional Backup Power, Generators & UPS

- a) The offeror shall provide, where necessary, generator back up power sufficient for seven (7) days continuous operation without commercial power;
- b) The offeror shall provide, where necessary, universal power supply (UPS) sufficient for thirty (30) minutes uninterrupted operation without commercial power;



C.3.2.20. CLIN 0020 – Training

- a) The offeror shall provide administration training on each major network element or skill set to NCR's representatives as defined in Section F.8;
- b) The offeror shall identify reoccurring training requirements per major network element or skill set;
- c) The offeror shall identify the cost per training session for varying session sizes of 5, 10, 15 and 20 attendees;
- d) The offeror shall provide details and pricing for both on-site and remote training;
- e) The offeror shall provide a course syllabus of each recommended training course;

C.3.2.21. CLIN 0021 – Optional Extended Warranty

- a) The offeror shall provide optional extended warranty in one (1) year increments for at least a total of 5 years for all the network elements.

C.3.2.22. CLIN 0022 – Optional Billing System

- a) The offeror shall provide an optional billing system that will provide for real-time access, pricing, rating, settlement, service provisioning, order management, etc.

C.3.3. Statement of Work

This statement of work (SOW) describes the services, equipment, and subsystems to be provided by the offeror for engineering, installing, testing, documenting, operating and maintaining equipment and services for the system being acquired under this RFP.

- a) The offeror shall propose a standards based multi-vendor supported 700 MHz wireless broadband data system meeting all the requirements included in this document;
- b) The offeror shall perform engineering, design, equipment selection, implementation, optimization, system testing, integration operations and maintenance, and other associated tasks necessary to ensure the installed system is functional and complete, and that it meets the technical specifications included in this document;
- c) The offeror shall identify and cost out all necessary site facility additions and modifications, and may, at NCR's option, be required to perform the modifications;

C.3.4. Offeror Responsibilities

The offeror's responsibilities include, but are not limited to, the following requirements. The offeror shall refer to appropriate paragraphs of this section for more detail.

- a) The offeror shall provide project management and scheduling to ensure proper coordination and timely completion of the system;



- b) The offeror shall conduct site surveys, or analyze construction drawings, to determine all construction and/or modifications of facilities required, including towers, equipment rooms, power systems, antenna support structures and buildings. The offeror shall identify and cost out the modifications and upgrades required for those facilities to support the system;
- c) The offeror shall provide the guaranteed system availability or network uptime;
- d) The offeror shall provide a guaranteed link budget for the offeror's proposed technology that at a minimum specifies the Maximum Allowable Path Loss, of 306 kbps on the forward link and 153 kbps on the reverse, additional data rates are preferable. The link budget shall support 95% coverage reliability and 90% contour reliability. The link budget shall assume a laptop computer inside of a vehicle with no external vehicular mounted antenna. The link budgets shall be prepared for urban, suburban and rural topographies;
- e) The offeror shall perform a detailed radio frequency (RF) propagation study and perform test measurements to confirm the validity of the propagation study.
- f) The offeror shall perform an interference analysis to and from relevant co-channel and adjacent licensees, as well as site-specific interference analysis (inter-modulation, etc.);
- g) The offeror shall provide a description of its technology including, but not limited to, network architecture, features, implementation options, security features and performance;
- h) The offeror shall develop and deliver a system design pursuant to the requirements as defined in Section C of this RFP;
- i) The offeror shall specify the weight, power requirements, heat dissipation, and physical space requirements of all proposed base station configurations
- j) The offeror shall specify the weight, power requirements, heat dissipation, and physical space requirements of all proposed core network elements
- k) The offeror, within 30 days of the issuance of a purchase order, shall submit a detailed network design pursuant to the requirements as defined in Section C of this RFP to the NCR's COTR for review and approval.
- l) The offeror, within 30 days of the issuance of a purchase order, shall develop and deliver a backhaul design pursuant to the requirements as defined in Section C of this RFP to the NCR's COTR for review and approval.;
- m) The offeror shall provide and install the system as defined in the approved detailed design document that has been approved by the NCR's COTR;
- n) The offeror shall warehouse all equipment until installation;
- o) The offeror shall propose test plans and procedures and conduct tests as per the mutually agreed plan that demonstrate the offeror meets all requirements. Those tests shall include, but not be limited to, installation test, integration tests, field test, security tests and performance tests;



- p) The offeror shall conduct operations and system administration training for the system to NCR's representatives;
- q) The offeror shall provide "as-built" documentation, including wiring and cable diagrams, system manuals, equipment manuals, security manuals and maintenance manuals;
- r) The offeror shall provide maps for each design phase that provide coverage in dBm and throughput in kbps for both the forward and reverse paths;
- s) The offeror coverage and throughput plots shall assume a laptop computer inside of a vehicle with no external vehicular mounted antenna;
- t) The offeror shall assume a 50% loading of the system when providing the coverage and throughput maps;

C.3.5. Network Features and Functional/Technical Specifications

- a) The network shall provide high-speed, high-bandwidth, packetized (IP based) wireless data wide area communications throughout the NCR region;
- b) The network shall provide a multi-agency wireless broadband data network accessible by Authorized NCR personnel;
- c) The network shall provide 95% in-vehicle area of coverage reliability throughout the NCR region with a minimum throughput of 306 kbps on the forward link and 153 kbps on the reverse link;
- d) It is the preference of the NCR that the network shall provide traffic load management that supports hierarchical cell structure, which in a multi-carrier system, the network can control access to specific carriers based on operator specified parameters;
- e) The network shall support implementation of IPv6 Addressing;
- f) The network shall provide seamless coverage between sites;
- g) The network shall be able to support full motion video streaming (15 frames per second); including during site-to-site or sector-to-sector transitions;
- h) The network shall be able to support variable rate video streaming based on bandwidth or other limitations as defined by the NCR network operations group;
- i) The network shall provide segmentation or redirection of traffic as needed to maintain throughput when traffic levels are high or when Radio Access Nodes are down and to maintain or increase coverage;
- j) The network shall enable data interoperability among NCR jurisdictions;
- k) The network shall provide over-the-air programming (OTAP) of changes to subscriber units and software upgrades;
- l) The network shall provide secure encrypted communications;
- m) The network shall provide scalability to increase capacity and coverage;



- n) The network shall support variable QoS (Quality of Service) on a sector-by-sector basis;
- o) The network shall support uplink multicast on the air interface, i.e. when a mobile user sends a message to several members of a IP-multicast group, only one radio channel is used to transmit the message to all IP-multicast group members;
- p) The network shall support downlink multicast on the air interface, i.e. when a several mobile members of a IP-multicast group are located in the same sector, only one radio channel is used in that sector for them to receive a message sent to this IP-multicast group;
- q) The system shall support geo-location using the Network(s) infrastructure and/or Global Positioning Satellite technologies (GPS);
- r) The network shall support data broadcast capability;
- s) The network shall make use of existing NCR public safety sites, buildings and interconnect infrastructure where available;
- t) The network shall provide for growth to support additional users, capacity, and functions;
- u) The network shall provide backup power at each base station sufficient to assure continuous operation at full power and functionality for a period of not less than seven (7) days in the absence of utility power
- v) The offeror shall indicate their ability, strategy, and roadmap for employing direct peer-to-peer communications between handsets or subscriber terminals without the use of the network.

C.3.5.1. Equipment and Technology Descriptions

The offeror shall provide a detailed description of the equipment and technology proposed. This description shall include, but shall not be limited to, all items below:

- a) Standardization Compliance;
- b) FCC Type Certification numbers for all radio equipment, operating in the spectrum specified, as required by 47CFR90.203 and/or the date by which the Type Certification will be completed;
- c) Technology Overview;
- d) The Physical Layer and Link Layers;
- e) The Application Scheduler;
- f) The Network Architecture and various network procedures;
- g) Throughput performance;
- h) Coverage performance including frequency reuse and interference;
- i) Capacity scalability;



- j) Security capabilities;
- k) Operations & Maintenance capabilities;
- l) Technology and Product roadmap;

C.3.6. Project Management Requirements

C.3.6.1. Task Management

The offeror shall be solely responsible for the performance of all project management functions necessary to assure the successful completion of all phases of this project. The tasks to be managed include, but are not limited to, network design, site' engineering, site' preparation, system engineering, equipment installation and testing, training and operations and maintenance.

C.3.6.2. Project Manager Assignment

The NCR retains the right to interview and approve the Project Manager and key management team members. The offeror shall provide resumes of all potential Project Managers and technical personnel who will work on this project to the COTR for prior approval before they begin to work on the project. Once assigned to this project for the duration(s) specified in the Proposal, the offeror shall not remove the Project Manager without the approval of the Contracting Officer (CO).

C.3.6.3. Project Manager Replacement

The DC-OCP-OCTO reserves the right to direct the offeror to promptly replace any Project Management team staff whose services DC-OCP-OCTO deems unsatisfactory. Proposed replacement staff is subject to pre-approval by DC-OCP-OCTO, and DC-OCP-OCTO shall have the right to interview the candidate(s) at no cost, upon request.

- a) The offeror shall establish a project management team consisting of a Project Manager (team leader) and members of the offeror's staff;
- b) The offeror shall replace unplanned departures as soon as possible with a minimum of two weeks of overlap with the departing Project Manager at no additional cost to DC-OCP-OCTO;

C.3.6.4. Project Manager Responsibilities

The Project Manager shall perform the following tasks as a minimum to meet the requirements of this specification:

- a) Review all RFP specifications and familiarize him or herself with the requirements;
- b) Be the sole contact for DC-OCP-OCTO, after the award of the contract;
- c) Develop a Project Management Plan that includes all tasks and milestones necessary to complete the requirements in the statement of the work;



- d) Once the Project Management Plan is approved by Contracting Officer's Technical Representative (COTR), it will become the baseline to measure schedule variance and offeror's performance for all project activities;
- e) Schedule the delivery, and keep the COTR informed at all times the delivery schedule of all equipment pertaining to this system;
- f) Be responsible for coordinating any required engineering;
- g) Coordinate all site preparation required for the successful installation of the Network(s) and applications;
- h) Provide to the COTR all installation documentation, wiring diagrams and as-built documentation;
- i) Coordinate the entire optimization effort of this system until accepted by the COTR;
- j) Coordinate with the COTR the delivery of all the training requirements as described within this specification;
- k) Organize a weekly meeting with the COTR and/or its representatives during the project to keep the COTR up to date on the status of all the activities;
- l) Provide the COTR with a weekly status & variance report;
- m) Provide Team Organization, Resources management, and Cost management;

C.3.7. Operations and Maintenance System Requirements

C.3.7.1. Operation and Maintenance System Capabilities

The capabilities of the Operation and maintenance system shall include:

- a) Networking interfaces shall use TCP/IP (or Ethernet) protocols;
- b) Alarm and messaging shall use SNMP format;
- c) The system shall include printers to print alarms and customizable reports;
- d) The offeror shall provide summary of the system reporting capability;

C.3.7.2. Configuration Updating and Maintenance.

- a) Alarms - All major equipment failures shall be displayed at the administrator terminal. These failures include but are not limited to; repeater failures, high VSWR, link failures, site controller failures (SNMP protocol);
- b) These alarm indications shall be capable of being forwarded to a paging system that will transmit a text radio (paging) message to the administrator;

C.3.8. Quality Control Requirements

- a) The offeror shall be responsible for the Quality Control of the execution of the project.



- b) The offeror shall develop a quality assurance plan and ensure that the system is designed, manufactured and implemented in accordance with these requirements;
- c) The Quality Assurance Plan shall address all stages of the project, including system design, installation, and testing;

C.3.9. Schedule

C.3.9.1. The area in which the new wireless broadband shall be deployed is given in Table 1 – NCR Description below. All design and network requirements, previously identified in this section, are based upon the final completed design of the NCR's Targeted Coverage Area (TCA). The schedule described below describes the deployment of the network in subsets or parts; which together will make up the NCR TCA.

C.3.9.2. For each subset or part of the network covered by that scheduled phase, the offeror shall insure that it meets all technical requirements of this RFP. By its very nature, each subset or part shall exclude or omit those areas not covered by that phase. For the excluded and omitted areas, the NCR shall waive the coverage requirements for this area and acceptance testing will not include these areas.

C.3.9.3. As each supplemental part is added to the network it shall be the responsibility of the offeror to insure that the new adjoined area is integrated seamlessly with the network and that the new combined area is compliant to the technical requirements.

C.3.9.4. The objective of each deployment cycle shall be to provide, as much as possible, ubiquitous coverage within a given jurisdiction.

- a) The qualified offeror shall have the capacity to deploy and install the first twenty-five (25) base station before the 31st of December 2006;

County	State	Area (sq mi)	Population
Alexandria	VA	15.2	135,337
Arlington County	VA	25.8	195,965
Bowie (City of)	MD	16.0	53,878
College Park	MD	5.4	25,171
District of Columbia	DC	67.9	550,521
Fairfax County	VA	405.9	1,006,529
Fairfax City	VA	6.1	21,963
Falls Church City	VA	2.0	10,781
Gaithersburg (City of)	MD	10.1	57,698



County	State	Area (sq mi)	Population
Greenbelt (City of)	MD	6.0	22,242
Leesburg (Town of)	VA	11.6	36,269
Loudoun County	VA	520.7	255,518
Manassas City	VA	10.1	37,569
Manassas Park	VA	2.5	11,622
Montgomery County	MD	505.6	927,583
Prince George's County	MD	492.5	846,123
Prince William County	VA	348.9	348,588
Rockville (City of)	MD	13.4	57,402
Takoma Park (City of)	MD	2.1	18,540

Table 1 - NCR Description



Section D. PACKAGING AND MARKING

The packaging and marking requirements for the resultant contract shall be governed by Clause Number 2. Shipping Instructions-Consignment, of the District of Columbia's Standard Contract Provisions for use with Supplies and Services Contracts, dated November 2004 (Attachment J.2.).



Section E. INSPECTION AND ACCEPTANCE

The inspection and acceptance requirements for the resultant contract will be governed by the requirements herein and the Inspection of Supplies Clause in Section 6 and the Inspection of Services Clause in Section 7 of the Government of the District of Columbia's Standard Contract Provisions for use with Supplies and Services Contracts, dated November 2002 (Attachment J.2.).

E.1. Performance Acceptance Requirements

- a. Provide a detailed verification of the anticipated System Performance. A functional Acceptance Test Plan (ATP(s)) shall be performed to verify that system requirements are satisfied.
- b. Offeror shall submit preliminary ATPs with the proposal. Final ATP shall be developed mutually by Offeror and DC-OCP-OCTO, with final approval by DC-OCP-OCTO. ATPs shall be finalized no later than 30 calendar days before testing is scheduled to begin.
- c. The successful completion of the entire Acceptance Test Plan is a pre-requisite for acceptance of the proposed system, including overall system functionality and hardware.
- d. Upon completion of the specific procedure, DC-OCP-OCTO's representatives observing the tests will sign and date the procedure documentation sheet.
- e. The functional ATP is composed of several categories containing a group of demonstrations or audits. The individual demonstrations or audits address a specific topic and/or system or sub-system of the overall communications system.
- f. The Functional Acceptance Test Plan provided in the proposal shall be a detailed document supplying the individual test requirements, methods, and procedures. These tests are designed based on the proposed system configuration.
- g. The Acceptance Test Procedure that shall be provided shall include, at a minimum, the following categories:
 1. Coverage
 2. User Equipment
 3. Security features



4. Data Communication performance: throughput (forward and reverse links), loading, latency, QoS, multicast, mobility, interoperability.
 5. System management
-
- h. The applicable demonstrations shall take place in the field. The DC-OCP-OCTO Technical Representative will participate in all tests. Trained Offeror personnel will perform the System Acceptance Test Procedure (ATP).
 - i. The coverage plots and throughput plots provided in the answer of the RFP shall be the reference used as a criteria of acceptance. Before testing, the offeror shall present any deviation of those plots (in case a site is not constructed in time for instance) to DC-OCP-OCTO to seek for its approval. The tests shall not start before DC-OCP-OCTO gives its approval. Deviations from the original deemed not to be acceptable by DC-OCP-OCTO shall be discussed on a per case basis with the offeror.



Section F. Deliveries and Performance

F.1. Term of Contract

The term of the contract shall be for a period of one (1) base year and four (4) option years, for a total of five (5) years (where indicated in the RFP), from date of award specified on page one (1) of the contract.

F.2. Option to Extend the Term of Contract

F.2.1. Extension

The DC-OCP may extend the term of this contract for a period of (2), six months option periods, or successive fractions thereof, by written notice to the Offeror before the expiration of the contract; provided that the DC-OCP will give the Offeror a preliminary written notice of its intent to extend at least thirty (30) days before the contract expires. The preliminary notice does not commit the DC-OCP to an extension. The exercise of this option is subject to the availability of funds at the time of the exercise of this option. The Offeror may waive the thirty (30) day preliminary notice requirement by providing a written waiver to the Contracting Officer prior to expiration of the contract

F.2.2. Exercised Option

If the DC-OCP exercises this option, the extended contract shall be considered to include this option provision.

F.2.3. Price

The price for the option period shall be as specified in the contract.

F.2.4. Duration

The total duration of this contract, including the exercise of any options under this clause, shall not exceed five (5) years.

F.3. Deliverables

- a) Deliverables shall be determined to be anything tangible that is to be delivered to the DC-OCP-OCTO i.e. reports, curriculum, plan.
- b) The proposal requests the deployment of a high-speed wireless data system. Time is of the essence. Therefore, the various deliverables of the proposal outlined in Section C “Description/specifications/Work Statement” are owed as described in that section.



- c) Provide, in the proposal, a detailed list of all required and anticipated deliverables, equipment and services, related to the project. All required items in Section C shall be addressed;
- d) In addition, the Offeror shall identify any other items or deliverables necessary for the completion of the work;
- e) In its answer to this RFP, the Offeror shall identify the support the offeror needs from the NCR to perform the project;
- f) In its answer to this RFP, the Offeror shall identify the assumptions made when developing its proposal;

F.3.1. High Speed Wireless Data Network Project Management:

The offeror shall describe how it intends to successfully manage this project: This includes, but is not limited to:

- a) Team Organization;
- b) Schedule Management;
- c) Resources Management;
- d) Cost Management;
- e) Task Coordination;
- f) Progress Tracking and Reporting;

F.3.2 Deliverables

CLIN	Deliverable	Quantity	Format/Method of Delivery	Delivery Schedule	To Whom
CLIN 0001	Three sector Wireless Base Station for shelter installation, Engineering Design, Project Management, Installation, Acceptance Testing & Optimization Services	NCR Approved quantity of sites for each phase	Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Base station delivery & Installation 60 days after issuance of purchase order. Acceptance testing and optimization – 30 days after Base station installation	COTR



CLIN 0002	Three sector wireless base station self-contained w/o shelter; Engineering Design, Project Management, Installation Acceptance Testing & Optimization Services		Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Base station delivery & Installation 60 days after issuance of purchase order. Acceptance testing and optimization – 30 days after Base station installation	COTR
CLIN 0003	Three sectored antenna system		Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Within 60 days of issuance of purchase order	COTR
CLIN 0004	Optional Core Network including Installation		Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Within 60 days of issuance of purchase order	COTR
CLIN 0005	Optional Core Network System including Installation w/o PDSN		Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Within 60 days of issuance of purchase order	COTR
CLIN 0006	Optional Microcell		Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Within 60 days of issuance of purchase order	COTR
CLIN 0007	Optional Picocell		Common Carrier (NOTE: Offeror shall provide warehouse for the base stations until they are delivered to the radio site.)	Within 60 days of issuance of purchase order	COTR
CLIN 0008	Subscriber Terminals		Common Carrier	Within 60 days of issuance of	COTR (See



	PCMCIA Cards			purchase order	Section G.9.1 for address)
CLIN 0009	Subscriber Terminals RJ-45 Ethernet Devices		Common Carrier	Within 60 days of issuance of purchase order	COTR (See Section G.9.1 for address)
CLIN 0010	Subscriber Terminals MP555 Compatible		Common Carrier	Within 60 days of issuance of purchase order	COTR (See Section G.9.1 for address)
CLIN 0011	Subscriber Terminals PDA		Common Carrier	Within 60 days of issuance of purchase order	COTR (See Section G.9.1 for address)
CLIN 0012	Subscriber Terminals Toughbook Modem		Common Carrier	Within 60 days of issuance of purchase order	COTR (See Section G.9.1 for address)
CLIN 0013	Backhaul Engineering Design Services & Equipment			Within 60 days of issuance of purchase order	COTR
CLIN 0014	Optional per Site Acquisition, Leasing, Permitting and Management			Within 60 days of issuance of purchase order	COTR
CLIN 0015	Optional per Site A&E, Electrical Engineering, Construction & Management			Within 60 days of issuance of purchase order	COTR
CLIN 0016	Optional	1		After System	COTR



	Operations and Maintenance 1-year duration – Core System			Acceptance	
CLIN 0017	Optional Operations and Maintenance 1-year duration – Base Stations	1		After System Acceptance	COTR
CLIN 0018	Optional Emergency Portable Broadband System			Within 60 days of issuance of purchase order	COTR
CLIN 0019	Optional Backup Power (Generators and UPS)			Within 60 days of issuance of purchase order	COTR
CLIN 0020	Training		Location TDB	Within 10 days of issuance of purchase order	COTR
CLIN 0021	Optional Extended Warranty				COTR
CLIN 0022	Optional Billing System			Within 60 days of issuance of purchase order	COTR

F.4. Project Management

F.4.1. General

- a) The offeror shall provide a detailed deployment plan, within 10 days of issuance of the purchase order, that will include the work breakdown structure, time lines (i.e. GANTT and PERT charts), milestones, resources assignment, quality and security check points;



- b) For each service required in the scope of this RFP, the offeror shall describe in skills and volume the human resources the offeror intends to deploy to provide those services;
- c) The offeror shall describe the experience his/her organization has had in managing similar projects: deployment and operations of a mobile wireless data network;
- d) The offeror shall develop a Risk management plan;
- e) The project plan shall clearly define the lead time required for all work, so that NCR can have adequately coordinate the activities with local jurisdictions;

F.4.2. Quality Control

- a) The offeror shall include a Quality Assurance Plan for the system project;
- b) The Quality Assurance Plan shall include the offeror's proposed quality control plans and procedures, which shall ensure that the system is designed, manufactured and implemented in accordance with these requirements. The Quality Assurance Plan shall address all stages of the project, including system design, installation, and testing;
- c) The proposed Quality Assurance Plan shall address the procedures related to the following tasks:
 - a) Design analysis and verification;
 - b) RF coverage analysis and verification;
 - c) Design changes and document control;
 - d) Material receiving, storage and shipping;
 - e) Site preparation;
 - f) Installation personnel training and certification;
 - g) Field installation and inspection;
 - h) System testing and validation;
 - i) RF coverage validation;
 - j) Material and workmanship deficiency reporting and restoration;

F.4.3. Security

- a) The offeror shall describe the processes, equipment, features and tools that will be utilized and implemented to insure the security objectives are compliant with the requirements of this RFP.



F.5. Analysis & Design Components

F.5.1. System Design

The offeror shall provide a system preliminary design for all phases.

- a) The system preliminary design shall be based on the functional and performance requirements described in Section C of this RFP and in conjunction with the results of the analyses performed;
- b) The offeror shall use all existing public safety radio sites throughout the NCR jurisdictions; however, the offeror can propose additional sites (not to exceed one third or 33% of the final site count), so the offeror can meet the technical specifications of this RFP;
- c) It is the preference of the NCR that for any offeror proposed sites priority shall be given to properties and structures owned by local, state and federal governments respectively. As a last option, the offeror may propose additional private sites to meet the coverage and throughput requirement of this RFP;
- d) The offeror shall indicate all single points of failure of the network and shall specify the impact of each on the network;
- e) The offeror shall provide the Network Availability Criteria Factor and the rating and method by which the value was calculated;
- f) The system shall continue to operate with all specified features listed if any single system controller device fails;
- g) The failure of any critical sub-system shall initiate software and/or contact closure alarm notification to a system administrator;
- h) The offeror shall provide all A&E drawings and support materials required for all proposed antenna systems such that NCR can obtain permits for the installations;

F.5.2. System Design Deliverables

The deliverables of the preliminary design of the system shall at least include:

- a) Project working schedule;
- b) Block diagrams representing the overall system and subsystems;
- c) Description of the system and subsystems;
- d) Propagation analysis;
- e) Interface definitions;
- f) List of all major hardware and software elements required to substantiate the design;
- g) List of all sites modification, construction, and their associated costs;



- h) List of all site support services and utilities necessary to ensure proper operation of the system;
- i) Evaluation of the system reliability; to include the reliability of the integrated system as well as the reliability of each key component (i.e. MTBT or mean time between failure), the level of redundancy, the single points of failure;
- j) For each service required in the scope of this RFP, the offeror shall describe in skills and volume the human resources the offeror intends to deploy to provide those services;
- k) Upon approval of the preliminary design, the offeror shall develop a detailed design;
- l) The offeror shall submit the system detailed design and required studies to NCR for approval;
- m) The offeror shall not commence any further work until approval is received;
- n) The offeror shall identify and define all required leased communications circuits needed to provide interconnection of all sites;
- o) The offeror shall provide all leased line specification information;
- p) The dimensioning of the leased lines shall provide an N+1 redundancy;
- q) The offeror shall provide an interface control document describing the physical, mechanical, electrical and functional relationships of equipment being interfaced;

F.5.3. Design Documentation

The offeror shall provide the following types of system and equipment specific manuals (Both in hard copies and electronic formats):

- a) The offeror shall provide System manuals: 2 copies for the radio system provided and one for each applicable site;
- b) The offeror shall provide Operations and Maintenance manuals: 2 copies for the type of fixed site equipment provided and one set for each applicable site;
- c) The offeror shall provide Security manuals or at minimum, reference to security related documentation within the requirements of the System, Operations and Maintenance manuals;
- d) The offeror shall submit the technical specifications of all radio equipment identified in the design as well as its FCC Type Certification numbers as required by 47CFR90.203 and/or the date by which the Type Certification will be completed;

F.5.4. Propagation Analysis

- a) The offeror shall perform a coverage analysis of the proposed sites. The coverage simulation shall provide forward and reverse link composite coverage (expressed in dBm), as well as expected user throughput plots (expressed in kbps). Two plots per terminal type/power, one for forward link, one for reverse link, shall be provided. The



offeror shall provide coverage maps overlaid on a topographic map with 1:50,000 scale or better;

- b) The offeror shall provide specific link budgets for each site;
- c) The offeror shall provide elements describing the propagation tool, including propagation model used;
- d) The propagation modeling software shall go through a tuning process utilizing empirical data derived from drive tests before any system design to take place. The offeror shall provide the results of the propagation model tuning, including the statistical measurements evaluating the quality of this modeling. As such, the offeror shall be responsible for the routine update and documentation of the software model/parameters to be used for site analysis;
- e) The offeror shall identify coverage parameters and provide detailed description of the coverage analysis for the offeror preliminary design. A list of all assumptions and considerations for proposed sites shall be included in the answer to this RFP. Those assumptions include transmitted powers, ERP, antennas heights, cables losses, as well as other components and features affecting the link budget and the sites coverage and performance;
- f) The system shall be designed to meet the coverage performance requirements specified in the technical specifications section;

F.5.5. Interference Analysis

- a) The offeror shall minimize the effects of interference at each site;
- b) The offeror shall perform an interference analysis at each of the radio sites;
- c) The offeror shall describe how he intends to perform the site interference analysis (process, tools, measurements, etc.);
- d) The analysis shall identify potential interferers to the NCR equipment, as well as evaluate the potential interference the offeror's equipment could create at the site, or on other co-channels or adjacent systems;
- e) The analysis shall ensure compatibility with co-located wireless systems (inter-modulation studies);
- f) The analysis shall ensure compatibility with the co-located public safety voice networks for 800 MHz and the 460MHz bands;
- g) The offeror shall describe how much interference the proposed technology is expected to generate in the adjacent bands, both by the base station transmitters and by the mobile transmitters;
- h) The offeror shall provide the transmission masks of the base stations and terminals proposed, required to support this analysis;



- i) The offeror shall provide specifications of the receiving filters of the base stations and terminals proposed;
- j) The offeror shall provide a plan to mitigate any potential interference that is either defined by the inter-modulation analysis or as a result of the installation of the new radio networks equipment;

F.5.6. Backhaul Design

In the response to this RFP, the offeror shall identify and define all required leased communications circuits needed to provide interconnection of all sites. The offeror shall provide all leased line specification information.

- a) The offeror shall provide a Fixed Network Backhaul design utilizing, to the fullest extent possible NCR properties and facilities, including but not limited to, NCR-owned or leased copper, fiber and microwave facilities. NCR shall, where possible, make every effort to provide sufficient access and capacities to the offeror for use of NCR-owned and operated facilities;
- b) The offeror design shall provide a Fixed Network Design document that included a network diagram and the proper sizing for all backhaul facilities. The document shall include all assumptions utilized to develop the design and bandwidth capacity for all backhaul facilities;
- c) The offeror shall provide all the infrastructure and backhaul to the extent it is not being provided by NCR;
- d) The use of 4.9 GHz public safety band shall also be investigated as a possible backhaul solution;
- e) The NCR will provide the necessary communications circuits that may be available from existing public safety sites for use in backhaul;
- f) The NCR will provide the necessary communications circuits from NCRnet hub locations that may be available for use in backhaul;

F.6. Acquisition & Permitting

F.6.1. Core Network

The NCR shall be responsible for all acquisition and permitting required at the core network sites.

F.7. A&E, Electrical Engineering & Construction

If the option has been approved:



- a) The offeror shall describe all anticipated radio site work required to meet the requirements of this RFP;
- b) The offeror shall provide a copy of its latest installation and quality standards with the response to this RFP.
- c) The offeror shall provide all the antennas, transmission line, connectors, antenna mounts and miscellaneous hardware required for every site;
- d) The antennas shall be three sectored antennas with cross-pole, single radome antennas to provide diversity;
- e) Appendix 2 includes a matrix describing roles and responsibility for sites preparation;

F.7.1. Installation

- a) The offeror shall be responsible for installing all equipment necessary for the operation of the system as described in this document;
- b) The offeror shall develop detailed installation plans and procedures to perform the work in accordance with the schedule and implementation plan;
- c) Before the installation of any equipment, the offeror shall submit to the COTR a draft Site Installation Plan which outlines the installation of the infrastructure equipment on a site-by-site basis. The offeror shall incorporate any and all comments received from COTR into the final document;
- d) The proposed installations shall be approved by COTR prior to commencement of a particular stage of work on a site-by-site basis. No work can commence without written approval;
- e) The offeror shall install the equipment within the designated space as proposed in the installation plan;
- f) After equipment installation, the offeror shall submit as built documentation for each site;
- g) The network equipment shall be installed in the NCR facilities by skilled personnel who shall be available for support maintenance and operation of the system;
- h) The offeror and the COTR shall conduct an initial and final walk-through to determine operational conditions;
- i) Access to all existing NCR facilities shall require prior coordination with the COTR;
- j) The offeror shall develop and document a labeling system and shall mark all installed equipment and associated termination hardware, including transmission lines and cables using easy-to-read identification labels;
- k) The labels shall describe the equipment details and/or cable termination points in accordance with the final design drawings;



- l) The offeror shall provide, a list of recommended parts with pricing and stocking levels required to sustain operation of the system for 1 year;
- m) The offeror and NCR representative shall check that the installation at each site has been performed correctly and is compliant with the original network design and specifications;
- n) The offeror shall insure that the installation of the radio site equipment is compliant to public safety's de-facto standard; Motorola's "**R56 Standards and Guidelines for Communications Sites**" (**Appendix 4**);

F.7.2. Testing

- a) The offeror shall perform the acceptance test plan in compliance with the mutually agreed upon and approved acceptance test plan and that each system and each subsystem is operational and meets all functional requirements system (registration, hand-off, etc.).
- b) After approval by the COTR of the Acceptance Test Plan, the offeror shall perform the tests as per that plan, with oversight and validation by the COTR.
- c) The offeror shall validate the technical performance specifications (coverage, latency, throughput and capacity) of the proposed technology and is compliant with the requirements of this RFP.
- d) The offeror shall conduct tests that include lab tests, on-site measurements as well as field measurements (drive tests) to validate the network performs as designed and is compliant with the requirements of this RFP.
- e) The offeror shall conduct radio performance tests (under the supervision of COTR) for both the forward link and reverse link to insure the network is compliant with the requirements of this RFP.
- f) The offeror shall conduct network tests (under the supervision of COTR) that validate the network capacity and loading effects on performance by using a concentrated number of mobiles at a couple of sites and to insure the network is compliant with the requirements of this RFP.
- g) The offeror shall evaluate the amount of interference created by the system in the 700 MHz band and in adjacent bands, as well as evaluate the effects of interference from adjacent band into the system.
- h) The offeror shall demonstrate the technology can support the various applications specified in the technical specifications of this RFP.
- i) The offeror shall assess the operational and maintenance viability of the proposed system/technology by tracking on going performance of the system during the Phase 1 operational phase. The offeror shall provide a written report of any system anomalies, including a plan to resolve any identified problems with the performance of the network.



- j) The performance tracking shall include statistics and data collected through the O&M system, data collected on a periodic basis through field measurements (drive tests, site tests). The offeror shall provide a report with the data collected from the network, making recommendations for network improvements or configuration changes that can improve network performance.
- k) The offeror shall assess the efficiency of the security plan implementation and document any variances from the standard security measures to insure the network is compliant with the requirements of this RFP.
- l) The offeror shall ensure that the system acceptance plan validates the security checks by trying to violate the countermeasures and shall provide a recorded and verified result.
- m) The offeror shall execute tests that include System test cases and reports of the various components as well as security tests of the integrated system and an assessment of the functional operation, performance, and resistance to penetrations to insure the network is compliant to the requirements of this RFP.
- n) The results of the tests will be shared with the Public Safety community such that the lessons learned during NCR phase 1 and each additional phase will promote and accelerate the deployment of such networks and applications across the country.
- o) The offeror shall provide the test equipment required to perform those tests. The test equipment shall allow the NCR to achieve the testing objectives stated above.
- p) The offeror shall provide drive test measurement tools that will be able to produce maps depicting the system performance (field strength, data statistics, link quality, etc.), and evaluate the system as perceived by the user in terms of coverage, throughput (peak and average) and link quality (latency). The offeror shall provide the coverage maps in dBm and throughput maps in kbps.
- q) The offeror shall provide the results of those tests in a written report that compared the actual measured results to the performance as stated by the offeror in the original approved system design in the response to this RFP.

F.8. Training

- a) The offeror shall identify training classes and their prerequisites required to afford NCR representatives the ability to administer, control, maintain and supervise each major network element and manage the access to the network.
- b) The training shall include technical and system manager training, as well as other necessary training identified by the offeror.
- c) The offeror shall provide complete and comprehensive system management training per major network element or skill set and shall include, but not be limited to:
 - 1. RF Planning and design of the network;
 - 2. Optimization of the RF interface and associated parameters;



3. A technical review of the technology
 4. Operations, maintenance and repair;
 5. Building and implementing system;
 6. Performing database management functions;
 7. Monitoring and managing the system's performance
 8. Network profiles and configurations;
 9. Maintaining security controls;
 10. Writing and printing system reports;
 11. Handset features;
 12. Provisioning of user services and QoS;
 13. Account activities including activations, changes and deactivations;
- d) The offeror shall identify the reoccurring training requirements per skill set;
 - e) The offeror shall provide pricing for both on-site training (within the NCR) and remote (at the offeror's training center, if applicable);
 - f) The offeror shall provide pricing for varying training class sizes of 5, 10, 15, and 20;
 - g) The offeror shall provide a course syllabus of each recommended training course;

F.9. Equipment Specifications

In the response to this RFP, the offeror shall submit the technical specifications and provide a detailed description of all equipment identified in the design.

- a) The data shall describe all physical equipment specifications including, but not limited to size and height of the equipment, physical space required, power supply requirements, working temperature ranges, etc.
- b) The offeror shall indicate as well the Mean Time Between Failures (MTBF) of each key components of the system.

F.9.1. Standardization References

- a) References to specific available standard documentation shall be provided.

F.9.2. Technology Overview

- a) The offeror shall give an overview of the proposed technology including a description of:
 1. The physical layer and link layers
 2. The application scheduler



3. The network architecture and various network procedures
- b) The offeror shall describe the overall network architecture including:
 1. Different network elements and their roles and function, including the O&M system
 2. Interfaces between those different elements, including the O&M system
 3. Interfaces with external networks
 4. The available network configurations alternatives, and their pros and cons
 5. Security architecture-description, elements, functions and/or configurations
 6. The offeror shall describe how the proposed solutions will enable interoperability as described in the technical specifications Section C.3.1.1.
 7. Roaming
 8. Authentication Authorization and Registration
 9. Call Set Up
 10. Call Release
 11. Mobility management (hand-off, if applicable)
 12. Simulcast (if applicable)

F.9.3. Terminals

- a) The offeror shall describe the various available types of terminals and their respective technical characteristics. These characteristics are physical (size, weight, etc.) as well as electrical (RF sensitivity, RF transmit power, etc.). This shall include at least:
 - a) PCMCIA cards
 - b) Handhelds
 - c) Modems
 - d) Mobile routers
- b) For each type of terminal proposed the offeror shall describe the operating systems supported, the minimum requirements (CPU, OS, memory, etc.), and the different antenna options.

F.9.4. Performance

In the response to this RFP, the offeror shall state if the proposed technology meet or exceed the requirements described in the technical specifications section (C.3.3.).

- a) The offeror shall provide the information required to assess what user throughput is achievable with the proposed technology, and quantify how system and radio environments (coverage level, interference level, loading level, number of simultaneous



users) affect throughput. In particular, the offeror shall provide curves depicting achieved data rates as a function of coverage level, interference level, traffic loads.

- b) Achievable data rates on the physical layer and actual user throughputs shall be differentiated in the response to this RFP.
- c) Forward and reverse link performance shall be differentiated if applicable in the response to this RFP.
- d) The offeror shall assess the latency performance of the system as a function of loading and number of simultaneous users.
- e) The offeror shall assess the frequency reuse the proposed technology supports. The offeror shall provide the C/I, Eb/N0 and S/N required maintaining the performance requirements stated in this RFP.
- f) The offeror shall provide a spreadsheet detailing the technology's link budgets. The offeror shall describe all the elements of the link budget. This shall include, but will not be limitative to:
 - 1. The different power options available for the base station;
 - 2. The antenna gains both at mobile and base station;
 - 3. The cables loss assumptions;
 - 4. The receiver sensitivity and selectivity;
 - 5. The typical Log-Normal Fade margins;
 - 6. A description of any link budget enhancement techniques (LNA, diversity schemes, multicast, etc.) the offeror suggests to implement;
 - 7. The effect of network loading on performance (if applicable);
- g) A generic link budget shall be given for each mobile power class and each BTS power class the offeror includes in his proposal, if applicable.
- h) The offeror shall provide the necessary equipment specifications and data that will support the adjacent interference analysis. This information shall be provided for all elements of the system that are relevant to this analysis, including the transmission masks of base station and terminals transmitters, as well as the filters shapes of the base station and terminal receivers.

F.9.5. Capacity Scalability

The offeror shall describe the available options to increase the system capacity, as well as the relevant costs (equipment, engineering, etc.) associated to the tasks required to implement those options.

- a) For each option, the offeror shall describe the corresponding implementation process, and shall provide for each case a complete list of equipment, hardware, software resources required to perform this implementation;



F.9.6. Security

- a) The offeror shall provide a detailed description of the physical and electronic security features provided with the proposed system, including encryption;
- b) The offeror shall describe the encryption key management system, how it interfaces with the system, how keys are selected from the console position, the number and location of key loaders. The offeror shall provide costs of encryption on a per channel and per user radio basis;

F.9.7. Roadmap

The offeror shall describe in the response to this RFP, its services, features and equipment roadmap. Specifically, the response shall deal with the availability of features and/or security aspects that would not be available for the NCR system, but will be in next release or revision of the proposed technology, in example:

- a) Ruggedization of terminals and cards
- b) PDA devices
- c) The ability to support compact flash PDA cards
- d) Voice over IP
- e) Phone like devices

F.10. Operations and Maintenance

F.10.1. O&M Functions

As an option, the offeror shall propose pricing for Operations and Maintenance services of the proposed network for a one-year duration. The offeror shall list the relevant functions involved in Operations and Maintenance as follows:

- a) Network monitoring
- b) Performance/Analysis Management
- c) Configuration/Data Management
- d) Engineering Support
- e) Field Engineering
- f) Maintenance of security controls
- g) Preventative Maintenance of all site equipment including radios, transmission system, battery plants, backhaul hardware and generators
- h) Repair; Mean Time to Repair (MTTR) key components



- i) Weekly network reliability reports that include a historic report of network reliability figures for the entire life of the network

F.10.2. O&M Capabilities

The offeror shall describe in the response to this RFP the Operation and maintenance capabilities of the proposed system. Full Operation and maintenance capabilities shall be available. Those include, but are not limited to:

- a) Network monitoring functions such as events counters, call traces, and other statistical reports (dropped calls, call attempts, traffic measurements, etc.),
- b) Real-time and historic reports,
- c) Alarms management system,
- d) Configuration management system
- e) Standard and ad-hoc reporting capabilities
- f) Over the Air Programming (OTAP) for terminal configuration updates for new features and for firmware changes

F.10.2.1. Spare parts

The offeror shall provide a list of recommended parts with pricing and stocking levels required to sustain operation of the system for 1 year;

F.10.3. Engineering Support

The offeror shall provide technical support to resolve problems or faults. Major tasks include, but are not limited to:

- a) Troubleshooting
- b) Testing of all new software releases introduced into the network
- c) Significant Hardware changes introduced into the network
- d) To ensure that any new services introduced can be provisioned, operated and maintained

F.10.4. Field Engineering

The offeror shall provide Field Engineering that consists in carrying out all activities at the actual field locations of the Network Elements. Major tasks include, but are not limited to:

- a) Ensure correct network operation at field locations
- b) Preventive maintenance actions
- c) Co-operation with Network Operations Center (NOC) in fault and emergency situations/first line maintenance support



- d) Change of faulty Hardware (HW) units and HW extensions

F.10.5. Offeror Responsibilities

- a) The offeror shall provide network monitoring personnel that are responsible for detecting alarms and abnormal conditions that occur in the network and taking immediate actions to protect service.
- b) The network monitoring function takes place in real time and the response time shall be immediate.
- c) Alarm messages received via the Network Management Systems, or any channels in which faults are reported, shall be dealt with as they occur.
- d) Major tasks include, but are not limited to:
 - 1. Monitor the entire telecommunication network
 - 2. Initiate Trouble Tickets when needed
 - 3. Keep updated a trouble ticket database records on daily tickets, causes of trouble, fixes.
 - 4. Co-operate with Customer Care to ensure best feedback for end-users
 - 5. Co-operate with specialists to ensure quick trouble recovery
 - 6. Provide weekly summary report of all network trouble tickets including total downtime, network availability, mean time to repair and other pertinent network performance indicators as determined by the COTR.

F.10.6. Performance/Analyses Management

- a) The offeror shall provide Performance/Analyses management system which consists of tracking the daily performance of the network.
- b) The offeror shall track traffic statistics, alarm levels, congestion, fault logs and customer service logs are used to analyze where the faults are in the network.
- c) The offeror shall provide weekly trend reports and long term historic reports to determine if network performance is improving or deteriorating.
- d) The offeror shall provide a Performance/Analyses management system that includes supporting troubleshooting efforts for faults detected in the network. Major tasks include, but are not limited to:
 - 1. The offeror shall collect all counters and statistics provided by the system, and periodically (daily/weekly/monthly) provide reports to the COTR.
 - 2. The offeror shall measure, and report the quality of the network. Drive tests may be included.



Section G. CONTRACT ADMINISTRATION DATA

G.1. Ordering Clause

- a) Any supplies and services to be furnished under this contract must be ordered by issuance of delivery orders or task orders by the Contracting Officer. Such orders may be issued during the term of this contract.
- b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of a conflict between a delivery order or task order and this contract, the contract shall control.
- c) If mailed, a delivery order or task order is considered "issued" when the District deposits the order in the mail. Orders may be issued by facsimile or by electronic commerce methods.

G.2. Invoice Payments

- G.2.1** The District will make payments to the Offeror, upon the submission of proper invoices, at the prices stipulated in this contract, for supplies delivered and accepted or services performed and accepted, less any discounts, allowances or adjustments provided for in this contract.
- G.2.2** The District will pay the Offeror on or before the 30th day after receiving a proper invoice from the Offeror.

G.3. Invoice Submittal

- G.3.1** The Offeror shall submit proper invoices on a monthly basis or as otherwise specified in Section G.4. Invoices shall be prepared in duplicate and submitted to the agency Chief Financial Officer (CFO) with concurrent copies to the Contracting Officer's Technical Representative (COTR) specified in Section G.9 below. The address of the CFO is:

CFO Accounts Payable
Office of the Chief Technology Officer
441 4th Street, NW, Suite 930 South
Washington, DC 20001
Telephone: 202-727-2277
Fax: 202-727-1261
Email: octo.accountspayable@dc.gov



G.3.2 To constitute a proper invoice, the Offeror shall submit the following information on the invoice:

G.3.2.1 Offeror's name, federal tax ID and invoice date (Offerors shall date invoices as of the date of mailing or transmittal);

G.3.2.2 Contract number and invoice number;

G.3.2.3 Description, price, quantity and the date(s) that the supplies or services were delivered or performed;

G.3.2.4 Other supporting documentation or information, as required by the Contracting Officer;

G.3.2.5 Name, title, telephone number and complete mailing address of the responsible official to whom payment is to be sent;

G.3.2.6 Name, title, phone number of person preparing the invoice;

G.3.2.7 Name, title, phone number and mailing address of person (if different from the person identified in G.2.2.6 above) to be notified in the event of a defective invoice; and

G.3.2.8 Authorized signature.

G.4. Payment

The District shall pay the monthly amount due to the Contractor under this contract upon completion and acceptance of all work and properly executed invoice.

G.5. Assignment of Contract Payments

G.5.1 In accordance with 27 DCMR 3250, the Offeror may assign funds due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution.

G.5.2 Any assignment shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party.



G.5.3 Notwithstanding an assignment of contract payments, the Offeror, not the assignee, is required to prepare invoices. Where such an assignment has been made, the original copy of the invoice must refer to the assignment and must show that payment of the invoice is to be made directly to the assignee as follows:

Pursuant to the instrument of assignment dated _____,
make payment of this invoice to _____
(name and address of assignee).

G.6. The quick Payment Clause

G.6.1 Interest Penalties to Offerors

G.6.1.1 The District will pay interest penalties on amounts due to the Offeror under the Quick Payment Act, D.C. Official Code §2-221.01 *et seq.*, for the period beginning on the day after the required payment date and ending on the date on which payment of the amount is made. Interest shall be calculated at the rate of 1% per month. No interest penalty shall be paid if payment for the completed delivery of the item of property or service is made on or before:

- a) the 3rd day after the required payment date for meat or a meat product;
- b) the 5th day after the required payment date for an agricultural commodity; or
- c) the 15th day after the required payment date for any other item.

G.6.1.2 Any amount of an interest penalty which remains unpaid at the end of any 30-day period shall be added to the principal amount of the debt and thereafter interest penalties shall accrue on the added amount.

G.6.2 Payments to Subofferors

G.6.2.1 The Offeror must take one of the following actions within 7 days of receipt of any amount paid to the Offeror by the District for work performed by any subofferor under a contract:

- a) Pay the subofferor for the proportionate share of the total payment received from the District that is attributable to the subofferor for work performed under the contract; or
- b) Notify the District and the subofferor, in writing, of the Offeror's intention to withhold all or part of the subofferor's payment and state the reason for the nonpayment.

G.6.2.2 The Offeror must pay any lower-tier subofferor or supplier interest penalties on amounts due to the subofferor or supplier beginning on the day after the payment



is due and ending on the date on which the payment is made. Interest shall be calculated at the rate of 1% per month. No interest penalty shall be paid on the following if payment for the completed delivery of the item of property or service is made on or before:

- a) the 3rd day after the required payment date for meat or a meat product;
- b) the 5th day after the required payment date for an agricultural commodity; or
- c) the 15th day after the required payment date for any other item.

G.6.2.3 Any amount of an interest penalty which remains unpaid by the Offeror at the end of any 30-day period shall be added to the principal amount of the debt to the subofferor and thereafter interest penalties shall accrue on the added amount.

G.6.2.4 A dispute between the Offeror and subofferor relating to the amounts or entitlement of a subofferor to a payment or a late payment interest penalty under the Quick Payment Act does not constitute a dispute to which the District of Columbia is a party. The District of Columbia may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

G.7. Contracting Officer (CO)

Contracts will be entered into and signed on behalf of the District only by contracting officers. The name, address and telephone number of the Contracting Officer is:

William Sharp
Contracting Officer
Office of Contracting and Procurement
441 4th Street, NW, Suite 930 South
Washington, DC, 20001
Telephone: 202-727-5274
Fax: 202-727-1679
Email: William.sharp@dc.gov

G.8. Authorized Changes by the Contracting Officer

G.8.1 The Contracting Officer is the only person authorized to approve changes in any of the requirements of this contract.

G.8.2 The Offeror shall not comply with any order, directive or request that changes or modifies the requirements of this contract, unless issued in writing and signed by the Contracting Officer.



- G.8.3** In the event the Offeror effects any change at the instruction or request of any person other than the Contracting Officer, the change will be considered to have been made without authority and no adjustment will be made in the contract price to cover any cost increase incurred as a result thereof.

G.9. Contracting Officer's Technical Representative (COTR)

- G.9.1** The COTR is responsible for general administration of the contract and advising the Contracting Officer as to the Offeror's compliance or noncompliance with the contract. In addition, the COTR is responsible for the day-to-day monitoring and supervision of the contract, of ensuring that the work conforms to the requirements of this contract and such other responsibilities and authorities as may be specified in the contract. The COTR for this contract is:

Robert LeGrande
Deputy Chief Technology Officers
Office of the Chief Technology Officer
441 4th Street NW, Suite 930 South
Washington DC 20001
Telephone: 202-727-2189
Fax: 202-727-6394
Email: Robert.LeGrande@dc.gov

- G.9.2** The COTR shall not have authority to make any changes in the specifications or scope of work or terms and conditions of the contract.
- G.9.3** The Offeror may be held fully responsible for any changes not authorized in advance, in writing, by the Contracting Officer; may be denied compensation or other relief for any additional work performed that is not so authorized; and may also be required, at no additional cost to the District, to take all corrective action necessitated by reason of the unauthorized changes.



Section H. Special Contracts Requirements

H.1. Department of Labor Wage Determination

- a. The Offeror shall be bound by the Wage Determination No. 1994-2103 Revision No. 35 dated 05/23/2006, issued by the U.S. Department of Labor in accordance with the Service Contract Act of 1965, as amended (41 U.S.C. 351) and incorporated herein as Appendix J.5 of this solicitation. The Offeror shall be bound by the wage rates for the term of the Contract. If an option is exercised, the Offeror shall be bound by the applicable wage rate at the time of the option. If the option is exercised and the Contracting Officer for the option obtains a revised wage determination, that determination is applicable for the option periods; the Offeror may be entitled to an equitable adjustment.

H.2. Audits, Records and Record Retention

- a. At any time or times before final payment and three (3) years thereafter, the Contracting Officer may have the Offeror's invoices or vouchers and statements of cost audited. Any payment may be reduced by amounts found by the Contracting Officer not to constitute allowable costs as adjusted for prior overpayment or underpayment. In the event that all payments have been made to the Offeror by the District Government and an overpayment is found, the Offeror shall reimburse the NCR for said overpayment within thirty (30) days after written notification.
- b. The Offeror shall establish and maintain books, records, and documents (including electronic storage media) in accordance with generally accepted accounting principles and practices which sufficiently and properly reflect all revenues and expenditures of funds provided by the NCR under the contract that results from this solicitation.
- c. The Offeror shall retain all records, financial records, supporting documents, statistical records, and any other documents (including electronic storage media) pertinent to the contract for a period of five (5) years after termination of the contract, or if an audit has been initiated and audit findings have not been resolved at the end of five (5) years, the records shall be retained until resolution of the audit findings or any litigation which may be based on the terms of the contract.
- d. The Offeror shall assure that these records shall be subject at all reasonable times to inspection, review, or audit by Federal, NCR, or other personnel duly authorized by the Contracting Officer.
- e. Persons duly authorized by the Contracting Officer shall have full access to and the right to examine any of the Offeror's contract and related records and documents,



regardless of the form in which kept, at all reasonable times for as long as records are retained.

- f. The Offeror shall include these aforementioned audit and record keeping requirements in all approved subcontracts and assignments.

H.3. Publicity

- a. The Offeror shall at all times obtain the prior written approval from the Contracting Officer before it, any of its officers, agents, employees or subofferor either during or after expiration or termination of the contract make any statement, or issue any material, for publication through any medium of communication, bearing on the work performed or data collected under this contract.

H.4. Conflict of Interest

- a. No official or employee of the NCR Jurisdiction or the Federal Government who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of this contract shall, prior to the completion of the project, voluntarily acquire any personal interest, direct or indirect, in the contract or proposed contract. (DC Procurement Practices Act of 1985, D.C. Law 6-85 and Chapter 18 of the DC Personnel Regulations).
- b. The Offeror represents and covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Offeror further covenants not to employ any person having such known interests in the performance of the contract.

H.5. Freedom of Information Act

The District of Columbia Freedom of Information Act, at D.C. Official Code § 2-532 (a-3), requires the District to make available for inspection and copying any record produced or collected pursuant to a District contract with a private offeror to perform a public function, to the same extent as if the record were maintained by the agency on whose behalf the contract is made. If the Offeror receives a request for such information, the Offeror shall immediately send the request to the COTR designated in subsection G.9 who will provide the request to the FOIA Officer for the agency with programmatic responsibility in accordance with the D.C. Freedom of Information Act. If the agency with programmatic responsibility receives a request for a record maintained by the Offeror pursuant to the contract, the COTR will forward a copy to the Offeror. In either event, the Offeror is required by law to provide all responsive records to the COTR within the timeframe designated by the COTR. The FOIA Officer for the agency with programmatic responsibility will determine the releasability of the records. The District will reimburse the Offeror



for the costs of searching and copying the records in accordance with D.C. Official Code §2-532 and Chapter 4 of Title 1 of the *D.C. Municipal Regulations*.

H.6. Protection of Property

The Offeror shall be responsible for any damage to the building, interior, or their approaches in delivering equipment covered by this contract.

H.7. Americans with Disabilities Act of 1990 (ADA)

During the performance of the contract, the Offeror and any of its subofferors shall comply with the ADA. The ADA makes it unlawful to discriminate in employment against a qualified individual with a disability.

See 42 U.S.C. §12101 et seq.

H.8. Section 504 of the Rehabilitation Act of 1973, as amended.

During the performance of the contract, the Offeror and any of its subofferors shall comply with Section 504 of the Rehabilitation Act of 1973, as amended. This Act prohibits discrimination against disabled people in federally funded program and activities. See 29 U.S.C. §794 et seq.

H.9. Contractor Responsibility

H.9.1 The Offeror shall follow the procedures and rules of the Government of the District of Columbia, and additional procedures that the District representative may direct from time to time. During performance of work and/or at completion of work, the Offeror will provide for the orderly hand-over of work products and deliverables to designated DC-OCP-OCTO representative. The Offeror shall:

H.9.1.1 Establish and document project goals and optional strategies for their implementation. Support analyses with graphical drawings, charts and other presentation instruments as appropriate.

H.9.1.2 Collect and document project constraints for cost, schedule, and quality. Obtain approval from the DC-OCP-OCTO representative for proposed scope changes.

H.9.1.3 Throughout the performance of the above items, coordinate with District employees and other consultants/Offerors employed by the District.



- H.9.1.4** Provide limited support after submission of deliverables and work products, as necessary to clarify the contents of deliverables to District staff and other offerors to the DC-OCP-OCTO.
- H.9.1.5** Prepare detailed agenda and meeting minutes for all meetings called or chaired by the Offeror. Such agenda shall identify in detail the specific items planned for discussion, and shall be distributed to proposed attendees well in advance of affected meetings. Such agenda are to set out responsible parties for action items, particularly decisions required by the District, including deadlines therefore, and the minutes shall record decisions made and the basis for each decision.
- H.9.1.6** Develop, obtain approval, and execute a quality control plan. Provide periodic senior management supervision of the work in this contract in order to provide quality control of the Offeror's work. Report findings to DC-OCP-OCTO representative with proposed actions. Provide this service at least every two weeks.
- H.9.1.7** Continuously monitor the status of Offeror's work hereunder and update status, providing DC-OCP-OCTO management timely information regarding possible problems and proposed action required to mitigate such problems.
- H.9.1.8** Continuously communicate status of the work relative to the approved schedule. Every week provide an updated, status schedule for the Offeror's work.
- H.9.1.9** Prepare and present weekly time sheets for work performed. Timely, complete and satisfactory provision by the Offeror to the DC-OCP-OCTO of such time sheets shall be a condition precedent to payment of the Offeror.
- H.9.1.10** Prepare and present weekly reports, throughout the performance of the Offeror's work, setting out current and upcoming activities, decisions required and issues of concern. Timely, complete and satisfactory provision by the Offeror to the District of such reports shall be a condition precedent to payment of the Offeror.
- H.9.1.11** Provide reporting and communications in copies and form requested by the designated DC-OCP representative.



H.10 DRAFT NOTICE - THE LIVING WAGE ACT OF 2006

DRAFT NOTICE

“THE LIVING WAGE ACT OF 2006”

Title I, D.C. Law No. 16-118, (D.C. Official Code §§ 2-220.01-.11)

Effective June 9, 2006, recipients of new contracts or government assistance shall pay affiliated employees and subcontractors who perform services under the contracts no less than the current living wage **\$11.75 per hour.**

The requirement to pay a living wage applies to:

- All recipients of contracts in the amount of \$100,000 or more; and, all subcontractors of these recipients receiving \$15,000 or more from the funds received by the recipient from the District of Columbia, and,
- All recipients of government assistance in the amount of \$100,000 or more; and, all subcontractors of these recipients of government assistance receiving \$50,000 or more in funds from government assistance received from the District of Columbia.

“Contract” means a written agreement between a recipient and the District government.

“Government assistance” means a grant, loan or tax increment financing that result in a financial benefit from an agency, commission, instrumentality, or other entity of the District government.

“Affiliated employee” means any individual employed by a recipient who received compensation directly from government assistance or a contract with the District of Columbia government, including any employee of a contractor or subcontractor of a recipient who performs services pursuant to government assistance or contract.

Certain exceptions may apply where contracts or agreements are subject to wage determinations required by federal law which are higher than the wage required by this Act; contracts for electricity, telephone, water, sewer other services delivered by regulated utility; contracts for services needed immediately to prevent or respond to a disaster or eminent threat to the public health or safety declared by the Mayor; contracts awarded to recipients that provide trainees with additional services provided the trainee does not replace employees; tenants or retail establishments that occupy property constructed or improved by government assistance, provided there is no receipt of direct District government assistance; Medicaid provider agreements for direct care services to Medicaid recipients, provided that the direct care service is not provided through a home care agency, a community residential facility or a group home for mentally retarded persons; and contracts or other agreements between managed care organizations and the Health Care Safety Net Administration or the Medicaid Assistance Administration to provide health services.



Exemptions are provided for employees under 22 years of age employed during a school vacation period, or enrolled as a full-time student who works less than 25 hours per week, provided that other employees are not replaced, and for employees of nonprofit organizations that employ not more than 50 individuals.

Each recipient and subcontractor of a recipient shall provide this notice to each affiliate employee covered by this notice, and shall also post this notice concerning these requirements in a conspicuous site in the place of business.

All recipients and subcontractors shall retain payroll records created and maintained in the regular course of business under District of Columbia law for a period of at least 3 years.

This is a summary of the “Living Wage Act of 2006”. For the complete text go to:

www.does.dc.gov or www.ocp.dc.gov

**To file a complaint contact: Department of Employment Services
Office of Wage-Hour
64 New York Avenue, N.E., Room 3105, Washington, D.C. 20002
(202) 671-1880**

H.11 WAY TO WORK AMENDMENT ACT OF 2006

H.11.1 Except as described in H._. 8 below, the Contractor shall comply with Title I of the Way to Work Amendment Act of 2006, effective June 9, 2006 (D.C. Law 16-118, D.C. Official Code §2-220.01 *et seq.*) (“Living Wage Act of 2006”), for contracts for services in the amount of \$100,000 or more in a 12-month period.

H.11.2 The Contractor shall pay its employees and subcontractors who perform services under the contract no less than the current living wage published on the OCP website at www.ocp.dc.gov.

H.11.3 The Contractor shall include in any subcontract for \$15,000 or more a provision requiring the subcontractor to pay its employees who perform services under the contract no less than the current living wage rate.

H.11.4 The Department of Employment Services may adjust the living wage annually and the OCP will publish the current living wage rate on its website at www.ocp.dc.gov.

H.11.5 The Contractor shall provide a copy of the Fact Sheet attached as J._ to each employee and subcontractor who performs services under the contract. The Contractor shall also post the Notice attached as J._ in a conspicuous place in its place of business. The Contractor shall include in any subcontract for \$15,000 or more a provision requiring the subcontractor to post the Notice in a conspicuous place in its place of business.



H.11.6 The Contractor shall maintain its payroll records under the contract in the regular course of business for a period of at least three (3) years from the payroll date, and shall include this requirement in its subcontracts for \$15,000 or more under the contract.

H.11.7 The payment of wages required under the Living Wage Act of 2006 shall be consistent with and subject to the provisions of D.C. Official Code §32-1301 *et seq.*

H.11.8 The requirements of the Living Wage Act of 2006 do not apply to:

- (1) Contracts or other agreements that are subject to higher wage level determinations required by federal law;
- (2) Existing and future collective bargaining agreements, provided, that the future collective bargaining agreement results in the employee being paid no less than the established living wage;
- (3) Contracts for electricity, telephone, water, sewer or other services provided by a regulated utility;
- (4) Contracts for services needed immediately to prevent or respond to a disaster or eminent threat to public health or safety declared by the Mayor;
- (5) Contracts or other agreements that provide trainees with additional services including, but not limited to, case management and job readiness services; provided that the trainees do not replace employees subject to the Living Wage Act of 2006;
- (6) An employee under 22 years of age employed during a school vacation period, or enrolled as a full-time student, as defined by the respective institution, who is in high school or at an accredited institution of higher education and who works less than 25 hours per week; provided that he or she does not replace employees subject to the Living Wage Act of 2006;
- (7) Tenants or retail establishments that occupy property constructed or improved by receipt of government assistance from the District of Columbia; provided, that the tenant or retail establishment did not receive direct government assistance from the District;
- (8) Employees of nonprofit organizations that employ not more than 50 individuals and qualify for taxation exemption pursuant to section 501(c)(3) of the Internal Revenue Code of 1954, approved August 16, 1954 (68A Stat. 163; 26 U.S.C. § 501(c)(3));
- (9) Medicaid provider agreements for direct care services to Medicaid recipients, provided, that the direct care service is not provided through a home care agency, a community residence facility, or a group home for mentally retarded persons as those terms are defined in section 2 of the Health-Care and Community Residence Facility, Hospice, and Home Care Licensure Act of 1983, effective February 24, 1984 (D.C. Law 5-48; D.C. Official Code § 44-501); and
- (10) Contracts or other agreements between managed care organizations and the Health Care Safety Net Administration or the Medicaid Assistance Administration to provide health services.

H.11.9 The Mayor may exempt a contractor from the requirements of the Living Wage Act of 2006, subject to the approval of Council, in accordance with the provisions of Section 109 of the Living Wage Act of 2006.



Section I. Contract Clauses

I.1. Applicability of Standard Contract Provisions

- a. The Standard Contract Provisions for use with District of Columbia Government Supply and Services Contracts dated November 2004, as amended, (Appendix J.4) the District of Columbia Procurement Practices Act of 1985, as amended, and Title 27 of the District of Columbia municipal Regulations, as amended, are incorporated as part of the contract resulting from this solicitation.

I.2. Contracts that Cross Fiscal Years

- a. Continuation of this contract beyond the fiscal year is contingent upon future fiscal appropriations.

I.3. Confidentiality of Information

- a. All information obtained by the Offeror relating to any employee of the District or customer of the District shall be kept in absolute confidence and shall not be used by the Offeror in connection with any other matters, nor shall any such information be disclosed to any other person, firm, or corporation, in accordance with the District and Federal laws governing the confidentiality of records.

I.4. Time

- a. Time, if stated in a number of days, will include Saturdays, Sundays, and holidays, unless otherwise stated herein.

I.5. Restrictions on Disclosure and Use of Data

- a. Offerors who include in their proposal data that they do not want disclosed to the public or used by the District Government except for use in the procurement process shall:

- 1) Mark the title page with the following legend:

"This proposal includes data that shall not be disclosed outside the District Government and shall not be duplicated, used or disclosed in whole or in part for any purpose except for use in the procurement process.

- 2) If however, a contract is awarded to this Offeror as a result of or in



connection with the submission of this data, the District Government shall have the right to duplicate, use, or disclose the data to the extent consistent with the District's needs in the procurement process. This restriction does not limit the District's rights to use, without restriction, information contained in this data if it is obtained from another source. The data subject to this restriction are contained in sheets (insert numbers or other identification of sheets)."

- 3) Mark each sheet of data it wishes to restrict with the following legend:

"Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

I.6. Rights in Data

- a. "Data," as used herein, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing, or management information.
- b. The term "Technical Data", as used herein, means recorded information, regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental, developmental or engineering work, or be usable or used to define a design or process or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design type documents or computer printouts. Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information, and computer software documentation. Technical data does not include computer software or financial, administrative, cost and pricing, and management data or other information incidental to contract administration.
- c. The term "Computer Software", as used herein means computer programs and computer databases. "Computer Programs", as used herein means a series of instructions or statements in a form acceptable to a computer, designed to cause the computer to execute an operation or operations. "Computer Programs" include operating systems, assemblers, compilers, interpreters, data management systems, utility programs, sort merge programs, and automated data processing equipment maintenance diagnostic programs, as well as applications programs such as payroll, inventory control and engineering analysis programs. Computer programs may be either machine-dependent or machine-independent, and may be general purpose in nature or designed to satisfy the requirements of a particular user.



- d. The term "computer databases", as used herein, means a collection of data in a form capable of being processed and operated on by a computer.
- e. All data first produced in the performance of this Contract shall be the sole property of the District. The Offeror hereby acknowledges that all data, including, without limitation, computer program codes, produced by Offeror for the District under this Contract, are works made for hire and are the sole property of the District; but, to the extent any such data may not, by operation of law, be works made for hire, Offeror hereby transfers and assigns to the District the ownership of copyright in such works, whether published or unpublished. The Offeror agrees to give the District all assistance reasonably necessary to perfect such rights including, but not limited to, the works and supporting documentation and the execution of any instrument required to register copyrights. The Offeror agrees not to assert any rights in common law or in equity in such data. The Offeror shall not publish or reproduce such data in whole or in part or in any manner or form, or authorize others to do so, without written consent of the District until such time as the District may have released such data to the public.
- f. The District shall have restricted rights in data, including computer software and all accompanying documentation, manuals and instructional materials, listed or described in a license or agreement made a part of this contract, which the parties have agreed will be furnished with restricted rights, provided however, notwithstanding any contrary provision in any such license or agreement, such restricted rights shall include, as a minimum the right to:
 - 1) Use the computer software and all accompanying documentation and manuals or instructional materials with the computer for which or with which it was acquired, including use at any District installation to which the computer may be transferred by the District;
 - 2) Use the computer software and all accompanying documentation and manuals or instructional materials with a backup computer if the computer for which or with which it was acquired is inoperative;
 - 3) Copy computer programs for safekeeping (archives) or backup purposes; and
 - 4) Modify the computer software and all accompanying documentation and manuals or instructional materials, or combine it with other software, subject to the provision that the modified portions shall remain subject to these restrictions.
- g. The restricted rights set forth in section I.6.f are of no effect unless
 - (i) the data is marked by the Offeror with the following legend:



RESTRICTED RIGHTS LEGEND

Use, duplication, or disclosure is subject to restrictions stated in Contract No. _____

With _____ (Offeror's Name) and

- (ii) If the data is computer software, the related computer software documentation includes a prominent statement of the restrictions applicable to the computer software. The Offeror may not place any legend on the computer software indicating restrictions on the District's rights in such software unless the restrictions are set forth in a license or agreement made a part of the contract prior to the delivery date of the software. Failure of the Offeror to apply a restricted rights legend to such computer software shall relieve the District of liability with respect to such unmarked software.
- h. In addition to the rights granted in Section I.6.i below, the Offeror hereby grants to the District a nonexclusive, paid-up license throughout the world, of the same scope as restricted rights set forth in Section I.6.i below, under any copyright owned by the Offeror, in any work of authorship prepared for or acquired by the District under this contract. Unless written approval of the contracting Officer is obtained, the Offeror shall not include in technical data or computer software prepared for or acquired by the District under this contract any works of authorship in which copyright is not owned by the Offeror without acquiring for the District any rights necessary to perfect a copyright license of the scope specified in the first sentence of this paragraph.
- i. Whenever any data, including computer software, are to be obtained from a subofferor under this contract, the Offeror shall use Section I.6 in the subcontract, without alteration, and no other clause shall be used to enlarge or diminish the District's or the Offeror's rights in that subofferor data or computer software which is required for the District.
- j. For all computer software furnished to the District with the rights specified in Section I.6.e, the Offeror shall furnish to the District, a copy of the source code with such rights of the scope specified in Section I.6.e. For all computer software furnished to the District with the restricted rights specified in Section I.6.f, the District, if the Offeror, either directly or through a successor or affiliate shall cease to provide the maintenance or warranty services provided the District under this contract or any paid-up maintenance agreement, or if Offeror should be declared bankrupt or insolvent by the court of competent jurisdiction, shall have the right to obtain, for its own and sole use only, a single copy of the then current version of the source code supplied under



this contract, and a single copy of the documentation associated therewith, upon payment to the person in control of the source code the reasonable cost of making each copy.

- k. The Offeror shall indemnify and save and hold harmless the District, its officers, agents and employees acting within the scope of their official duties against any liability, including costs and expenses, (i) for violation of proprietary rights, copyrights, or rights of privacy, arising out of the publication, translation, reproduction, delivery, performance, use or disposition of any data furnished under this contract, or (ii) based upon any data furnished under this contract, or based upon libelous or other unlawful matter contained in such data.
- l. Nothing contained in this clause shall imply a license to the District under any patent, or be construed as affecting the scope of any license or other right otherwise granted to the District under any patent.
- m. Paragraphs I.6.f, I.6.g, I.6.h, I.6.k and I.6.m above are not applicable to material furnished to the Offeror by the District and incorporated in the work furnished under contract, provided that such incorporated material is identified by the Offeror at the time of delivery of such work

I.7. Other Offerors

- a. The Offeror shall not commit or permit any act that will interfere with the performance of work by another District Offeror or by any District employee.

I.8. First Source Employment Agreement

- a. The Offeror shall maintain compliance with the terms and conditions of the First Source Employment Agreement executed between the District of Columbia and the Offeror throughout the entire duration of the contract, including option periods if any.

I.9. Subcontracts

- a. The Offeror hereunder shall not subcontract any of the Offeror's work or services to any subofferor without the prior, written consent of the Contracting Officer. Any work or service so subcontracted shall be performed pursuant to a subcontract agreement, which the District shall have the right to review and approve prior to its execution to the Offeror. Any such subcontract shall specify that the Offeror and the subofferor shall be subject to every provision of this contract. Notwithstanding any such subofferor approved by the District, the Offeror shall remain liable to the District for all Offeror's work and services required hereunder.



I.10. Continuity of Services

- a. The Offeror recognizes that the services provided under this contract are vital to the District of Columbia and must be continued without interruption and that, upon contract expiration or termination, a successor, either the District Government or another offeror, at the District's option, may continue to provide these services. To that end, the Offeror agrees to:
- 1) Furnish phase-out, phase-in (transition) training; and
 - 2) Exercise its best efforts and cooperation to effect an orderly and efficient transition to a successor.

I.11. Insurance

- a. The Offeror shall obtain the minimum insurance coverage set forth below prior to award of the contract and within ten (10) calendar days after being called upon by the District to do so and keep such insurance in force throughout the contract period.
- 1) Bodily Injury: The Offeror shall carry bodily injury insurance coverage written in the comprehensive form of policy of at least \$500,000 per occurrence.
 - 2) Property Damage: The Offeror shall carry property damage insurance of at least (\$20,000) per occurrence.
 - 3) Workers' Compensation: The Offeror shall carry workers' compensation insurance covering all of its employees employed upon the premises and in connection with its other operations pertaining to this contract, and the Offeror agrees to comply at all times with the provisions of the workers' compensation laws of the District.
 - 4) Employer's Liability: The Offeror shall carry employer's liability coverage of at least one hundred thousand dollars (\$100,000) per employee.
 - 5) Automobile Liability: The offeror shall maintain automobile liability insurance written on the comprehensive form of policy. The policy shall provide for bodily injury and property damage liability covering the operation of all automobiles used in connection with performing the contract. Policies shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage.



- 6) All insurance provided by the Offeror as required by this section, except comprehensive automobile liability insurance, shall set forth the District as an additional named insured. All insurance shall be written with responsible companies licensed by the District of Columbia's Department of Insurance and Securities Regulation with a certificate of insurance to be delivered to the District's Contracting Officer within fourteen (14) days of contract award. The policies of insurance shall provide for at least thirty (30) days written notice to the District prior to their termination or material alteration.



Section J. List of Attachments

INCORPORATED ATTACHMENTS (*The following forms, located at www.ocp.dc.gov shall be completed and incorporated with the offer.*)

J.1. Wage Determination (WD) No. 1994-2103 Rev (35), 5/23/2006 To obtain a copy of the WD, go to <http://www.wdol.gov>. (located at www.gs.gov click on Services, and then under Financial Services on GSA Schedules, click on the Wage Determinations.)

J.2. The Standard Contract Provisions for use with District of Columbia Government Supplies and Services Contracts dated November 2004 (“SCP”), are incorporated as part of the contract resulting from this solicitation. To obtain a copy of the SCP go to www.ocp.dc.gov, click on Solicitation Attachments.

J.3. E.E.O. Information and Mayor’s Order 85-85

J.4. Tax Certification Affidavit

J.5. First Source Employment Agreement

J.6. Cost/Price Data Package

J.7. Contractor Experience Questionnaire Form

The following list of documents are included in SECTION J:

Appendix 1 Obtaining the Information on Existing Public Safety Sites

Appendix 2 Roles and Responsibility Matrix

Appendix 3 Public Safety Application Requirements

Appendix 4 Motorola R56 Standards and Guidelines for Communication Sites

Appendix 5 Copy of NCR’s Request for Waiver to FCC Rules Part 47 CFR 90.203

Appendix A Proposed Region Public Safety Data Channel Allocation Map

Appendix B1 (District of Columbia)

Appendix B2 (City of Fairfax)

Appendix B3 (Loudoun County)



Appendix B4 (Montgomery County)

Appendix B5 (Prince George's County)

Appendix B6 (Prince William County)

Appendix B7 (City of Rockville)

Appendix B8 (City of Takoma Park)

Appendix B9 (City of Alexandria)

Appendix C NCR Letter Supporting Request by Channel 64 (WZDC-LP) for Relocation

Appendix D NCR Letter Supporting Request by Channel 68 (WJAL) for Relocation

Appendix 6 – Metropolitan Washington Council of Government Rider Clause



Appendix 1: Obtaining the Information on Existing Public Safety Sites

A.1. Public Safety Sites

A.1.1 The offerors wishing to respond to this RFP can pick up a hard copy list and accompanying CDROM from the Regional Wireless Broadband Network (RWBN) office upon the offeror completing and returning the Contractor Experience Questionnaire Form (Section J.7.)

. The offeror will submit the form electronically using the RWBN contact information listed below. All forms shall be submitted within 10 business days of the RFP release date.

A.1.2 The list and CDROM will provide relevant details on the existing Public Safety municipal owned sites. It will provide at the very least the following items:

- a) Site name and address
- b) Geographical coordinates
- c) Structure type and height
- d) Digital image of the structure
- e) Shelter availability
- f) Backhaul availability
- g) Backhaul collection points

A.1.3 If more details are required by the offeror to accurately assess the pricing, then, the list of said items (accompanied with a brief justification or explanation) must be provided to Contracting Officer within 14 calendar days of the RFP release date. Each jurisdiction must approve individually any further release of information pertaining to their sites prior to release to the offerors.

RWBN Point of Contact
Bryan Casey
RWBN Program Manager
Bryan.Casey@dc.gov



Appendix 2: Roles and Responsibility Matrix

A.2. Roles and Responsibility Matrix

MILESTONE			
	TASK	TASK	OWNER
	SUBTASK	Vendor	NCR
PER SITE			
	SITE ACQUISITION		
	PROVIDE SITE PLAT, DEED MAP, TAX MAP OR OTHER DOCUMENTATION AS NEEDED FOR Vendor TO UTILIZE IN DETERMINING THE EXISTING SITE BOUNDARIES		P
	PROVIDE BUILDING DRAWINGS AS NEEDED FOR Vendor TO UTILIZE IN DETERMINING THE EXISTING STRUCTURAL CAPACITIES OF THE BUILDING AND ROOFTOP		P
	NEGOTIATE ACCESS TO THE BUILDING SITE AND ROOFTOP AREA AS REQUIRED FOR Vendor, ITS EMPLOYEES AND ITS SUBCONTRACTORS.		P
	ARCHITECTURAL AND ENGINEERING STUDY		
	CONDUCT SITE VISIT	P	
	PROVIDE ZONING DRAWINGS (UP TO TWO DRAWINGS) WITH INFORMATION TYPICALLY REQUIRED BY ZONING OFFICIALS (SITE SURVEY, SITE PLAN, SITE DIMENSIONS, ZONING REQUIREMENTS, SITE ELEVATION, ETC). DRAWINGS CONSIDERED NON-TYPICAL ARE NOT INCLUDED.		P
	PROVIDE SITE PLAN SHOWING EXISTING BUILDING LOCATION, UTILITY SOURCE IN THE STREET, UTILITY CONDUIT ROUTINGS FROM THE STREET TO THE BUILDING AND NATURAL GAS ROUTING FROM THE STREET TO THE BUILDING		P
	PREPARE AND PROVIDE DETAILS TO ROUTE UTILITY CONDUITS AND NATURAL GAS PIPING UP SIDE OF BUILDING IN A COVERED CHASE TO THE PREFAB BUILDING PROPOSED TO BE MOUNTED ON THE ROOF.	P	
	PREPARE AND PROVIDE DRAWINGS, STATEMENT OF WORK AND BILL OF MATERIALS TO PROVIDE A STRUCTURE OF ANTENNA SUPPORT POSTS (APPROXIMATELY 10' HIGH) ON THE ROOFTOP.	P	
	PREPARE AND PROVIDE DRAWINGS, STATEMENT OF WORK AND BILL OF MATERIALS TO EXTEND A COVERED CABLE TRAY FOR ROUTING OF THE RF CABLES AND WAVE GUIDES BETWEEN THE PREFAB BUILDING AND THE ANTENNA MOUNTING POSTS ON THE ROOFTOP.	P	
	PREPARE AND PROVIDE DRAWINGS, STATEMENT OF WORK AND BILL OF MATERIALS TO EXTEND A GROUND CONDUCTOR FROM THE BUILDING AND ANTENNAS ON THE ROOF TOP TO A NEW GROUND SYSTEM BETWEEN THE BUILDING AND THE STREET.	P	
	SITE PREPARATION		
	SURVEY BUILDING ROOFTOP	P	
	PROVIDE AND INSTALL BUILDING ROOFTOP STRUCTURAL MOUNTING SUPPORT AS PROVIDED FOR BY THE Vendor A&E DRAWINGS, ETC	P	
	PROVIDE AND INSTALL BUILDING ROOFTOP STRUCTURAL STEEL FRAMEWORK TO SUPPORT THE Vendor PROVIDED ANTENNAS (INCLUDES OPENING ROOF AND RESEALING ROOF) AS PROVIDED FOR BY THE Vendor A&E DRAWINGS, ETC	P	
	EXTEND AND INSTALL BUILDING ROOFTOP COVERED CABLE TRAY FOR ROUTING OF RF CABLES AND MICROWAVE WAVEGUIDE BETWEEN THE PREFAB BUILDING AND THE ANTENNA MOUNTING STRUCTURE AS PROVIDED FOR BY THE Vendor A&E DRAWINGS, ETC	P	
	EXTEND AND INSTALL VERTICAL COVERED CHASE FROM GROUND TO BUILDING ROOFTOP FOR HOUSING/ROUTING OF ELECTRICAL SERVICE, GAS SERVICE AND GROUND CABLE AS PROVIDED FOR BY THE Vendor A&E DRAWINGS, ETC	P	
	EXTEND AND INSTALL SITE GROUND SYSTEM AND EXTEND GROUND TO ROOFTOP MOUNTED PREFAB BUILDING AND ANTENNA MOUNTING STRUCTURE (TO BE ROUTED IN CHASE) AS PROVIDED FOR BY THE Vendor A&E DRAWINGS, ETC	P	



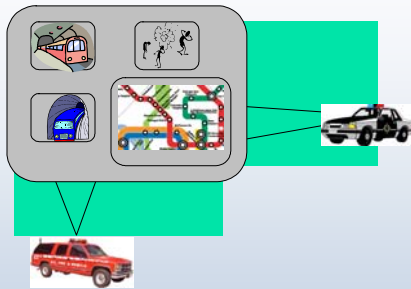
MILESTONE				
	TASK		TASK OWNER	
		SUBTASK	Vendor	NCR
PER SITE				
	ANTENNA SYSTEM			
		FINALIZE Vendor ANTENNAS ORIENTATION	P	
		FURNISH AND INSTALL MICROWAVE RF LINES	P	
		FURNISH AND INSTALL ANTENNAS	P	
		FURNISH AND INSTALL TRUNKING ANTENNA RF LINES	P	
		FURNISH AND INSTALL TRANSMISSION LINE MOUNTING BARS	P	
		EXTEND AND INSTALL INSIDE AND OUTSIDE ANTENNA RF LINE GROUND BUS DEVICES	P	
		EXTEND AND INSTALL RF LINE GROUND KITS	P	
		EXTEND AND INSTALL RF LINE SURGE SUPPRESSION DEVICES	P	
		FURNISH AND INSTALL INSIDE RF LINE JUMPERS	P	
	EQUIPMENT ROOM			
		PROVIDE PREFABRICATED EQUIPMENT SHELTER WITH BUILD IN EMERGENCY GENERATOR AND UPS SYSTEM		P
		APPLY FOR IF NEEDED AND RECEIVE ANY NECESSARY PERMITS, ETC INCIDENTAL TO PROVIDING ELECTRICAL SERVICE FROM UTILITY DELIVERY POINT TO EMERGENCY GENERATOR SUPPLY INPUT	P	
		EXTEND ELECTRICAL SERVICE TO PREFAB SHELTER SERVICE CONNECTION	P	
	SITE GROUNDING			
		FURNISH AND INSTALL EXTERIOR BUILDING GROUND SYSTEM TO STANDARD		P
		FURNISH AND INSTALL INTERIOR BUILDING GROUND HALO SYSTEM TO STANDARD		P
		MEASURE NEW BUILDING GROUND AND DOCUMENT RESULTS		P
		GROUND ALL Vendor PROVIDED/INSTALLED RF EQUIPMENT TO INTERIOR BUILDING GROUND HALO SYSTEM	P	
	COMMUNICATION LINKS			
		LEASED TELCO CIRCUITS OR T1 LINKS (IF/AS REQUIRED). ALL REQUIRED T1 LINKS (CIRCUITS) MUST BE TERMINATED AT Vendor FURNISHED AND INSTALLED T1 OR TELCO CIRCUIT PROTECTION DEVICES WHICH ARE MOUNTED IN OR ON Vendor FURNISHED AND INSTALLED EQUIPMENT CABINETS		P
	CABLE TRANSPORT SYSTEMS			
		FURNISH AND INSTALL CABLE TRAYS BELOW FLOORS OR ABOVE EQUIPMENT RACKS AS REQUIRED FOR THE TRANSPORTING OF THE Vendor FURNISHED RF WAVEGUIDE AND MISC INTERCONNECTING CABLES	P	
		EXTEND AND INSTALL EXTERIOR ROOFTOP COVERED HORIZONTAL RF CABLE TRAY BETWEEN ROOFTOP MOUNTED PREFAB BUILDING AND ROOFTOP ANTENNA/MICROWAVE DISH MOUNTING MASTS FOR ROUTING AND PROTECTION OF 800MHZ TRUNKING ANTENNA RF CABLES AND MICROWAVE WAVEGUIDE CABLE	P	
	EQUIPMENT INSTALLATION			



Appendix 3: Public Safety Applications Requirements

A.3. Public Safety Applications

PROTECT

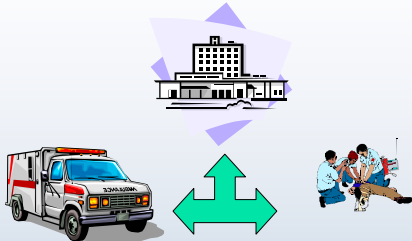


Per user rate required	1.2 Mbps (Forward) 10 kbps (Reverse)
Net throughput required	16.8 Mbps (Forward) 10 kbps (Reverse)
Potential throughput concentration	1 mile radius around site
Mobility	High Mobility (requires assessment en route)
Coverage required	Entire NCR

- Provides Chem/bio alarms, video, and other relevant information from Metro Subway
- Information Distribution
 - Six Fire Incident Commanders (Battalion Chiefs)
 - Six Police First Responders (cordon off area)
 - Two others EMA, EMS MDTs for incident coordination
- Throughput
 - Video: six feeds – 1 Mbps
 - GIS: 0.200 Mbps
- Coverage throughout NCR is mandatory –



EMS Application



Per user rate required	10 kbps (Forward) 250 kbps (Reverse)
Number of users	100
Peak Simultaneous usage	10%
Net throughput required	0.10 Mbps (Forward) 2.5 Mbps (Reverse)
Potential throughput concentration	2 mile radius around hospitals
Mobility	High Mobility (vehicular)
Coverage required	Entire NCR

- Capabilities
 - Current: Captures patient information and conveys wirelessly to hospitals
 - Future: Provides bi-directional video link for medical support to EMTs
- Information Distribution
 - 12 Hospitals
 - 100 Ambulances
- Throughput
 - Video: single feed – 240 kbps
 - Other: 10 kbps
- Coverage throughout NCR is mandatory

District of Columbia Wireless Programs

Slide 4

Police Video Application



Per user rate required	240 kbps (Forward) 240 kbps (Reverse)
Number of users	1200
Peak simultaneous usage	5%
Net throughput required	14.4 Mbps (Forward) 14.4 Mbps (Reverse)
Potential throughput concentration	In more heavily populated areas
Mobility	Vehicular (video feed to command during pursuit)
Coverage required	Entire NCR

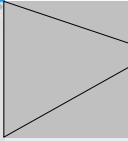
- Objectives
 - Provide remote video monitoring at command site (reverse link)
 - Provide video information to officers on patrol (forward link)
 - E.G. Street camera link to provide intelligence on
- Proposed Information Distribution
 - Hundreds of fixed video cameras
 - 1200 MPD cruisers
 - Several hundred additional Federal cruisers (USPP, USCP, USSS)
- Throughput
 - Video: single feed – 240 kbps (may require multiple feeds to cruisers)
- Coverage throughout NCR is mandatory – cruisers may be located anywhere throughout NCR.

District of Columbia Wireless Programs

Slide 5



CapWIN



■ Objectives

- Messaging among new and legacy systems within region
- Cross jurisdictional database access
- Incident command for Police, Fire, EMS, DOT

■ Information Distribution

- MPD: PDAs, MDTs – potentially 1200 devices
- F/EMS: all apparatus – 300 vehicles
- DDOT/DPW: all apparatus – 200 vehicles
- EMA: 15 vehicles
- Other agencies : 355 devices

■ Throughput

- Simple Text Messaging: 20kbps
- Image Distribution: 80kbps (100 kB image received in 10 seconds)

- **Coverage** throughout NCR is mandatory – vehicles may be located anywhere throughout region.

Per user rate required	120 kbps (Forward) 20 kbps (Reverse)
Number of users	2070
Peak simultaneous usage	10%
Net throughput required	24.8 Mbps (Forward) 4.1Mbps (Reverse)
Potential throughput concentration	In more heavily populated areas
Mobility	Vehicular
Coverage required	Entire Region



Summary of Requirements



	Total Requirement (worst case or aggregate) ^{1, 2}
Per user rate required	Forward: 1.5Mbps Reverse: 500 kbps
Net throughput required	Forward: 74 Mbps Reverse: 28 Mbps Scalability required to address future needs
Potential throughput concentration	70 percent in 20 percent of the city (10 Mbps per site)
Mobility	Vehicular, High Mobility including site-to-site transition
Coverage required	NCR and environs

¹ Throughput figures include IP and channel overhead of 30%

² Aggregate figures assume no multicasting

Need to meet these requirements as economically as possible to make the most of taxpayer dollars and keep more PS personnel on the streets!



Appendix 4: Motorola R56 Standards and Guidelines for Communications Sites

A.4. R56 Guidelines

The Motorola R56 Standards and Guidelines for Communications sites is available from Motorola at http://www.motorola-wls.com/Dynamic/Course_Description.asp?number=ANT001-CD&CourseKey=125 or by calling Motorola AAD at 800-422-4410.



Appendix 5: Copy of NCR's Request for Waiver to FCC Rules Part 47 CFR 90.203

A.5. NCR Waiver

03 July 2006

Via Hand Delivery

Federal Communications Commission
Marlene H. Dortch, Secretary
445 12th St., SW
Washington, DC 20554

Dear Secretary Dortch,

On behalf of the National Capital Region, please find attached a revised version of our waiver in the form of an original and four (4) copies.

Following guidance from the Commission, we have amended our initial filing to request waiver from an additional regulation, to add additional information, and to correct a clerical error contained in the original filing.

The specific changes in this amended version are:

- Requests waiver from 47 CFR 90.203 *Certification Required* (page 6)
- Addition of the City of Alexandria and the County of Arlington to this request (Appendix B and page 4)
- Correction of the amount of spectrum requested in the Wideband Reserve Channels (page 5)

Please contact me or Bill Butler on my staff should the Commission have any questions regarding this matter.

Sincerely,

Robert LeGrande II

National Capital Region Interoperability Program / Deputy Chief Technology Officer, District of Columbia
RL/whb

Enclosures

E-mail Cc:

Jeannie Benfaida, WTB

Bill Butler, NCR-IP (202 442 4933)

Fred Campbell, OCM

Bryan Casey, NCR-IP

Angela Giancarlo, WTB

Aaron Goldberger, CM-DT

Bruce Gottlieb, CM-MC

Hossein Hashemzadeh, MB

Jane Jackson, WTB

Barry Ohlson, CM-JA

Clay Pendarvis, MB

Catherine Seidel, ABC-WTB

Jennifer Sundergill, NCR-IP

Michael Wilhelm, WTB

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554



In the Matter of)
)
Request for Waiver by the National Capital Region)
from three Sections of 47 CFR 90.531 *Bandplan*)
(in Subpart R_Regulations) and Section 47 CFR 90.203)
Certification Required (in Subpart I_Regulations))

Request for Waiver of the Commission's Rule(s)

1.) Who is requesting this waiver?

Local governments of the National Capital Region (NCR) are the requestors of this waiver.¹ The waiver is requested as a component of the region's efforts in its NCR Interoperability Program (NCRIP). The NCRIP is a program with the goal of interoperable wireless and wireline networks and applications for the National Capital Region emergency support functions (ESF). The program is headed by ESF number two, communications, and is managed by the NCR Chief Information Officers and the NCR Regional Interoperability Group. One component of the NCRIP is the Regional Wireless Broadband Network (RWBN). The anticipated RWBN is intended to provide an interoperable, broadband, data network covering the NCR.

2.) Why is the NCR requesting this waiver?

At present, the 700 MHz rules are not sufficient for public safety to operate broadband networks. This waiver would enable the NCR to provide NCR emergency personnel with wireless broadband speeds throughout the NCR geography. Either the needed speeds or the coverage area are not possible with the VHF, UHF, 700/800 MHz, and 4.9 GHz current spectrum allocations.

As detailed in Table 6.1 below, the NCR already utilizes applications that require broadband speeds and intends to deploy additional applications that will further fuel the need for increased wireless data capacity. A new solution is needed to address this problem and provide emergency personnel with the needed communications capabilities wherever their work takes them – not only in limited hotspots. Several technologies are available to meet the dual broadband/wide-area requirement and they require at a least 1.25 MHz channel size to operate while the 700 MHz public safety wideband spectrum is limited to 150 kHz channels.

¹ The National Capital Region (NCR) was created pursuant to the National Capital Planning Act of 1952 (Title 40, U.S.C., Sec. 71). The Act defined the NCR as the District of Columbia; Montgomery and Prince George's Counties of Maryland; Arlington, Fairfax, Loudoun, and Prince William Counties of Virginia; and all cities now or here after existing in Maryland or Virginia within the geographic area bounded by the outer boundaries of the combined area of said counties. Today, the NCR includes the District of Columbia and eleven local jurisdictions in the State of Maryland and the Commonwealth of Virginia.



The NCR is requesting a waiver from the current rules allowing only wideband operations in the public safety 700 MHz band to overcome these obstacles. Several technologies, available today, can provide the needed broadband speeds and wide-area coverage. These technologies are among the most spectrally efficient technologies in use or under evaluation today and are used or contemplated by major national wireless service providers. While the NCR jurisdictions understand that the FCC has initiated the rulemaking change process to allow broadband in the wideband spectrum, as requested by public safety², this process will take too long for NCR jurisdictions. The need for dedicated broadband is now – natural disasters, criminals and terrorists are not waiting on our ability to communicate. Further, the NCR has the funds to implement the first phase of this network now (covering over 20% of the NCR), and must use them before the end of calendar year 2006. The availability of funding in three years when the new rules will be in place is uncertain. Therefore, the NCR must pursue the network implementation and the relevant waivers to the current rules in parallel with the national rulemaking changes to allow broadband. However, this waiver is not intended to impact the outcome of the NPRM.

The NCR is currently reviewing the FCC Notice of Proposed Rule Making (NPRM) on this specific subject. Our response to the NPRM will be in line with the changes being requested in this waiver, and our discussions with our Regional Planning Committee, the National Public Safety Telecommunications Council, other public safety officials and vendors of wireless data communications equipment collectively indicate that our proposed waiver strategy will likely be in line with other responses to the NPRM from these groups. We have found no group with responsibility for public safety communications systems to be against the possible use of wideband spectrum for broadband, especially as our proposal allows choice for each jurisdiction.

In summary, we plan to progress the permission/licensing process for the RWBN in the following manner. We are first making this waiver request of the Commission. While this request is being evaluated by the Commission, the NCR will work in the Region 20 committees to incorporate NCR broadband operations into the Region 20 plan. We strongly believe that our RPC, subject to Commission review, is the best body to steward this critical spectrum. Finally, assuming waiver approval and a regional plan that accommodates NCR broadband operations, individual NCR jurisdictions will apply for licenses.

This request uses the mixed use (wideband and broadband) band plan proposed by the National Public Safety Telecommunications Council, the collective voice of public safety communications. It allows NCR neighbors sufficient spectrum for wideband operations with the same capacity as originally planned by the Region 20 Regional Planning Committee without NCR broadband use. At the same time, it provides the potential for peak user rates of 3.1 Megabits per second (Mbps) and for average NCR-wide throughput of over 352 Mbps versus 912 kbps under a wideband channel plan. Furthermore, using interference resistant technologies, NCR jurisdictions will be able to add capacity as needed by “cell-splitting.”³ The NCR has

² As discussed in the 25 October 2005 ex parte meeting between the National Public Safety Telecommunications Council and the Federal Communications Commission about needed additional public safety spectrum and “consideration of the current 700 MHz wideband channel plan with regard to potential broadband use.”

³ The ability to add additional sites will be addressed in the Region 20 plan. Some restrictions at the borders of each broadband operator may be necessary to eliminate interference.



developed a broadband network deployment plan. This plan uses existing radio sites in the NCR where the municipalities already have backup generators, UPS, and frequently, redundant backhaul to the core network. An estimated eighty percent of the NCR broadband sites are existing radio sites – providing us with significant economies for capital and expenses. In essence, it is far more cost effective to build a 700 MHz network due to the limited number of sites that RF propagation permits and the facilities infrastructure available at many of those existing sites. While a 4.9 GHz or equivalent high frequency solution may provide the needed bandwidth per user, it is not achievable nor is it cost effective over the entire 2,465 square miles comprising the National Capital Region. Furthermore, it would be impossible to provide long-term backup power to these sites (sizeable batteries that extend the life of each site would be extremely expensive and not conducive to the physical constraints of the typical pole that hosts them). Therefore, it is imperative that the FCC grant the NCR the requested waiver to overcome these obstacles.

3. What rule(s) are requested to be waived?

In order to build and operate a fiscally responsible broadband network of networks that provides coverage over the NCR, we are requesting waivers from three sections of 47 CFR 90.531 *Bandplan* (in Subpart R_Regulations Governing the Licensing and Use of Frequencies in the 764-776 and 794-806 MHz Bands).⁴ The jurisdictions who have provided Memoranda of Support for this waiver, attached in Appendix B, as well as Arlington and Fairfax Counties and the Cities/Towns of Greenbelt, Leesburg and Manassas, who have given consent to be added to the waiver and whose formal approval process requires additional time, be waived from the following rules:

47CFR90.531(c) Wideband Segments (1) Wideband Interoperability Channels:

This section identifies twelve 50 kHz 3-channel groups⁵ currently reserved for nationwide interoperability. We are requesting a waiver whereby the NCR jurisdictions would be eligible to obtain licenses to operate a single pair of 1.25 MHz broadband channels; 03 (for base/mobile) and the corresponding channel 06 (for mobile).

Broadband channel 03 will require use of the spectrum currently allocated for wideband interoperability channels 73-75, 82-84 and 91-93. Likewise broadband channel 06 will use the spectrum, 30 MHz up the band in the Mobile half, corresponding to wideband interoperability channels 193-195, 202-204 and 211-213.

47CFR90.531(c) Wideband Segments (2) Wideband Reserve Channels:

⁴ Please note that the NCR fully appreciates that an additional requirement exists to obtain Region 20 approval for NCR 700 MHz usage and that broadband must be incorporated into the Region 20 700 MHz plan. This process is currently running in parallel to the waiver request process. Any regional planning documents presented herein are preliminary and are provided to demonstrate that a mixed use 700 MHz band is achievable.

⁵ 768.35 – 768.5 MHz, 768.8 - 768.95 MHz, 769.25 -769.4 MHz, 770.6 – 770.75 MHz, 771.05 – 771.2 MHz and 771.5 – 771.7 MHz to be used for Base/Mobile and 798.35 – 798.5 MHz, 798.8 – 798.95 MHz, 799.25 – 799.4 MHz, 800.6 – 800.75 MHz, 801.05 – 801.2 MHz and 801.5 – 801.65 MHz to be used for Mobile.



Four 27-channel groups are currently designated as “reserved” and not available for licensing⁶. We request that the NCR jurisdictions be able to license and operate on broadband channels 03 and 06 in the upper pair of the reserved channel groups due to the size of the broadband channels and in coordination with the NPSTC broadband channel plan. This request *will never* affect two of the four wideband reserve channel groups, and would only encumber 250 kHz (each) of the other two⁷.

Broadband base/mobile channel 03 (770.625 – 771.875 MHz) overlaps a 250 kHz portion of the wideband reserve group on wideband channels 94-98 (771.65 – 771.90 MHz). The rest of this reserved group will not be affected by this waiver for broadband channelization. Likewise, broadband mobile channel 06 (800.65 – 801.890 MHz) overlaps a 250 kHz portion of the wideband reserve group on wideband channels 214-218.

It is only in these two 250 kHz segments of these two reserved wideband channel blocks on which we are requesting waiver to operate broadband channels.

47CFR90.531 (d) *Combining Channels* (2) *Wideband*:

Wideband channels are currently sized as 50 kHz and there is an existing provision to combine two or three channels to allow bandwidth aggregation up to 150 kHz. The NCR jurisdictions request a waiver to this rule to allow aggregation of 50 kHz channels to accommodate a 1.25 MHz channel size.⁸ A view of the layout of the broadband channels, including the recommended guard bands is shown in *Table 3.1 – Public Safety Broadband Channel Distribution*

⁶ 767 – 768.35 MHz, 771.65 – 773 MHz, 797 – 798.35 MHz, and 801.65 – 803 MHz

⁷ Broadband channels 01 and 02 (Base/Mobile) do not share frequencies with the reserved channels in the lower grouping (currently wideband channels 1 through 27). Likewise broadband channels 04 and 05 (Mobile) do not share frequencies of the reserved channels in the upper grouping (currently wideband channels 121 through 147).

⁸ The NCR anticipates that aggregation beyond 1.25 MHz will be accommodated through national rulemaking changes.

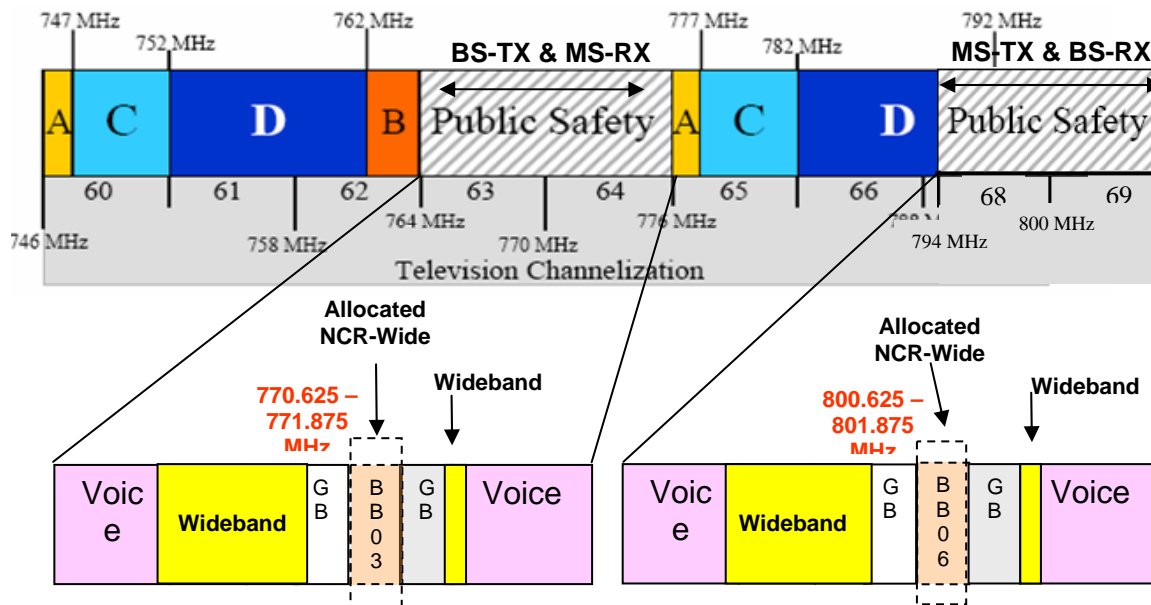


Table 3.1 – Public Safety Broadband Channel Distribution

47CFR90.203 Certification Required:

The NCR has every intention of deploying equipment for the RWBN that will *eventually* be certified by the Commission for use in the 700 MHz public safety band. Because this system will be acquired by competitive bid (so, technically we do not know today what equipment we will be utilizing) and because here-to-fore there has been no purpose in performing type acceptance (because there is no current provision for broadband wireless equipment in the 700 MHz spectrum) we request that the Commission waive this rule (or provide a temporary deferment of this requirement) for the RWBN equipment to be deployed by the NCR. It will be a requirement for offerors responding to our solicitation to both provide information about the equipment proposed, as well as present a schedule as to when they can have the proposed equipment type certified to the satisfaction of the Commission. The actual requirement from our Request for Proposal reads as follows:

F.5.3.(d) The offeror shall submit the technical specifications of all radio equipment identified in the design as well as its FCC Type Certification numbers as required by 47CFR90.203 and/or the date by which the Type Certification will be completed;

4.) What do we want to accomplish if we are granted this waiver?

If we are granted this waiver, we would immediately deploy a regional broadband wireless public safety network of networks that will be used by County and City governments in the NCR. The networks would deliver an aggregate throughput in excess of 352 Mbps on average with average transceiver rates of 1.1 Mbps. It will be built to public safety standards, with backup power and redundant forms of interconnect



at each site. Importantly, it will be dedicated for government use and at the control of NCR municipalities. Therefore, they, and they alone, can determine who gets access to the network, with what limits to individual available throughput (i.e., rate caps), and with what priority, consistent with each municipality's plan to provide urgent data communications to its personnel.

If granted a waiver, the NCR jurisdictions will operate a broadband network of networks operating on broadband channel three from the NPSTC plan (770.625–771.875 & 800.625-801.875).

5.) Who will the waiver request affect?

This waiver request affects several groups: NCR jurisdictions themselves, other 700 MHz licensees that may require wideband frequency changes in order to accommodate broadband spectrum use, and television broadcasters to a lesser extent.

5a.) NCR Jurisdictions

The eighteen counties and cities and part or all of three states that comprise the NCR are shown in *Table 5.1 – NCR Jurisdictions*

(1)	State	(2)	City/County
(3)	District of Columbia	(4)	
(5)	Maryland	(6)	
(7)		(8)	Montgomery
(9)		(10)	Gaithersburg
(11)		(12)	Rockville
(13)		(14)	Takoma Park
(15)		(16)	Prince George's
(17)		(18)	Bowie
(19)		(20)	College Park
(21)		(22)	Greenbelt
(23)	Virginia	(24)	
(25)		(26)	Arlington
(27)		(28)	Fairfax
(29)		(30)	Alexandria



(31)	(32)	Falls Church
(33)	(34)	Fairfax
(35)	(36)	Loudoun
(37)	(38)	Town of Leesburg
(39)	(40)	Prince William
(41)	(42)	Manassas
(43)	(44)	Manassas Park

Table 5.1 – NCR Jurisdictions

A map showing all the counties in Region 20, including those in the NCR are included as part of Appendix A below.

5b.) Extra-NCR and Intra-Region 20 Entities:

This request will have limited affect on the counties and city that are **part of Region 20 and not part of the NCR**. There are two Virginia counties (Fauquier and Stafford), twenty-one Maryland counties and the City of Baltimore that fall in to this category.

If the NCR is licensed to operate a broadband network and if the rest of Region 20 elects to implement wideband networks, the specific channel groups allocated to each county will have to be modified⁹ to ensure sufficient physical diversity to permit frequency reuse without interference or inter-modulation. Nevertheless, each county and city in Region 20 but outside the NCR can continue to have three contiguous 50 kHz channels reserved for their use as proposed in the CAPRAD national plan. The NCR has developed a channel plan that demonstrates that broadband and wideband can coexist in Region 20 (see *Appendix A – Proposed Region 20 Public Safety Data Channel Allocation.*). This plan is not the final Region 20 plan, but solely a representation of a channel plan that would enable broadband and wideband operations in Region 20. As previously noted, we are actively coordinating this channel plan with our Regional Planning Committee.

5c.) Extra Region 20 Entities:

This request may affect counties and cities in the **four surrounding Regions** (28, 36, 42, and 44) as a direct or indirect result of the NCR broadband operations in that their channel assignments may change, not decrease. No FCC approved regional plans for wideband exist in these regions, and therefore, it is difficult to estimate if these plans will conflict with regional plans under development. However, the NCR has already reached out to the affected regions to develop a working inter-regional plan. These licensees will only be affected by the change in their frequency allocation, if at all. The NCR will work

⁹ A regional wideband channel plan does not yet exist, but the national Computer Assisted Pre-Coordination Resource and Database system (CAPRAD) contains the de-facto national plan that the NCR must coordinate with.

with its neighbors to modify the existing plans as little as possible and contain frequency changes to the smallest area possible.

5d.) UHF Television Stations:

There are several television stations in the mid-Atlantic region that are co-channel or adjacent channel to the public safety spectrum allocations in the 700 MHz band.¹⁰ However, NCRs initial analysis indicates

10

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

that it's broadband (and relatively low power) operations will likely satisfy the requirements of Section 90.545 regarding protection of the relevant full-power television stations. To the extent necessary, appropriate technical showings will be included in applications submitted to the FCC for broadband licenses pursuant to this requested waiver. NCR has already consulted with the relevant television stations.¹¹

There is one low-power television station operating on channel 64, WZDC-LP. While channel 64 is a low power licensee and would have to make arrangements on a secondary and non-interfering basis post notice from the Region 20 RPC anyway, we understand that the license holder, Onda Capital, Inc., has made application on a displacement basis for assignment of digital channel 25. We have met with channel 64 management on several occasions to discuss this matter, and they understand the importance to public safety of our network as well as their secondary position. We also understand the public need for their

Table 5.2 – Television Stations Affecting the RWBN

¹¹ WJAL-TV, Hagerstown, MD, Channel 68, while not affecting the plans for the first phases of the RWBN, may affect the deployment of wireless service in Northern Montgomery and Loudoun Counties in later phases. We have already held amicable discussions with Entravision Communications Corp., the license holder of WJAL who have expressed an interest in moving (prior to the firm transition date) to digital channel 38. The NCR is supportive of this request and a copy of our support letter to the Commission is attached as *Appendix D – NCR Letter Supporting Request By Channel 68 (WJAL) For Relocation*. It is clearly in everyone's interest to resolve this matter as soon as convenient, but the NCR recognizes that any license issued for the full RWBN would restrict our use of and/or interference with the spectrum that is currently channel 68 until such time as the DTV date or surrender of their analog channel.



operation and want to support both parties' interests to the greatest extent possibly. Therefore, the NCR supports this channel request and a copy of our support letter to the Commission on this request is attached as *Appendix C – NCR Letter Supporting Request By Channel 64 (WZDC-LP) For Relocation*.

6.) Who have we coordinated this request with?

This package has been reviewed by, and represents the interests of, members of the National Capitol Region. Their concurrence with the request for broadband channels within Region 20 and the intention to design, engineer and implement (in stages) a shared NCR RWBN is contained in the attached *Appendix B – Memorandum of Support for Regional Wireless Broadband Network (RWBN)*.

For the first phase of this project (2007), the NCR will only need to have channel 64 cleared. While channel 64 is a low power licensee and would have to make arrangements on a secondary and non-interfering basis post notice from the Region 20 RPC anyway, we understand that the license holder, Onda Capital, Inc., has made application on a displacement basis for assignment of digital channel 25. We have met with channel 64 management on several occasions to discuss this matter, and they understand the importance to public safety of our network as well as their secondary position. We also understand the public need for their operation and want to support both parties' interests to the greatest extent possibly. Therefore, the NCR supports this channel request and a copy of our support letter to the Commission on this request is attached as *Appendix C – NCR Letter Supporting Request By Channel 64 (WZDC-LP) For Relocation*.

Channel 68, while not affecting the plans for the first phases of the RWBN, will have to move before the firm DTV transition date, 17 February 2009, and may affect the deployment of wireless service in Northern Montgomery and Loudoun Counties in later phases. We have already held amicable discussions with Entravision Communications Corp., the license holder of WJAL who have expressed an interest in moving (prior to the firm transition date) to digital channel 38. The NCR is supportive of this request and a copy of our support letter to the Commission is attached as *Appendix D – NCR Letter Supporting Request By Channel 68 (WJAL) For Relocation*. It is clearly in everyone's interest to resolve this matter as soon as convenient, but the NCR recognizes that any license issued for the full RWBN would restrict our use of and/or interference with the spectrum that is currently channel 68 until such time as the DTV date or surrender of their analog channel.

7.) Why is this request in the public interest?

7.1 Broadband channels will support wideband applications, but the reverse is not true. The Spectrum Coalition for Public Safety, an organization of like-minded state, county and city governments (of which several NCR governments are members) produced a report documenting research on how much spectrum is needed by first responders. Using information gathered principally from first responders and public safety users of the District of Columbia's experimental wireless broadband network (Wireless Accelerated Responder Network, or WARN), they determined that 25 MHz of broadband spectrum would be required



to just support users within the District of Columbia¹². This only reinforced the findings of the Final Report of the Public Safety Wireless Advisory Committee which had recommended that “over the next 15 years, as much as an additional 70 MHz of spectrum to satisfy the mobile communications for the Public Safety Community”¹³.

The Spectrum Coalition report determined that single user throughput requirements are determined by the most demanding applications, and many of the most useful applications require bandwidth in excess of the maximum aggregation of bandwidth permitted for wideband public safety data (3 x 50kHz – 150 kHz) if they are to be used by multiple users in a jurisdiction. This is a best case scenario based on the most spectrally efficient of current technologies, and determination of channel size has been made on the basis of the larger of the downlink or uplink demand. The following, *Table 7.1 – Public Safety Applications and Throughput Demand*, shows applications used by some first responders in the NCR today, throughput demand of the applications and their suitability for use over wideband or broadband networks.

(45)	Ap pli cat io n	(46)	T hr o u g h p ut D e m an d	(47)	Su pp or ta bl e by W id eb an d?	(48)	Su pp or ta bl e by Br oa db an d?
(49)	Full Mot ion, Hig h Res olut ion Vid eo	(50)	30 0 kb ps DL	(52)	N	(53)	Y
		(51)	30 0 kb ps UL				
(54)	Hig h- reso luti on Ima ges	(55)	3 kb ps DL	(57)	N	(58)	Y
		(56)	50 0 kb ps				

¹² *Public Safety Spectrum: How Much Do We Need For Data?*, Spectrum Coalition for Public Safety, 25 October 2005

¹³ *Final Report of the Public Safety Wireless Advisory Committee to the Federal Communications Commission*, Hundt and Irving, 11 September 1996



			UL				
(59)	CB RN Det ecti on Syst em	(60)	1.5 M bp s DL	(62)	N	(63)	Y
		(61)	10 kb ps UL				
(64)	CA D Vie wer	(65)	50 kb ps DL	(67)	Y (bu t not in hig h vol um es an d wit h lim ite d use ful nes s ove r we b ap ps)	(68)	Y
		(66)	3 kb ps UL				
(69)	Em ail/ Mes sagi ng	(70)	75 kb ps DL	(72)	Y (bu t not in hig h vol um es an d wit h lim ite d use ful nes s ove r we b int	(73)	Y
		(71)	50 kb ps UL				



				erf ace s)	
(74)	We b/T ext Bas ed App licat ions	(75)	50 kb ps DL	(77)	Y
		(76)	3 kb ps UL		(78) Y

Table 7.1 – Public Safety Applications and Throughput Demand

As the table depicts, applications exist today that exhaust the wideband capacity and even lower bandwidth applications (such as web access) will suffer when the demand is aggregated. The average wideband throughput for each 700 MHz licensee would be a little over 100 kbps. This would provide dialup level throughput for just two users in each jurisdiction, making this approach unsuitable even for routine use, much less in an emergency. A single broadband channel used throughout the NCR will provide over 10 times this throughput **per sector** (using the average speed) and the NCR intends to deploy nearly 300 sectors – delivering over 400 times the throughput while using less spectrum. Additionally, the plan has the promise of more bandwidth by adding more sites and when the national rulemaking changes occur, to potentially triple the capacity of each site.

Additionally, the District of Columbia currently operates an experimental 700 MHz city-wide broadband network called the Wireless Accelerated Responder Network, or WARN. WARN has provided valuable insight regarding the broadband needs of NCR emergency services. The following are a series of relevant quotes from emergency personnel using WARN. It is important to note that the District of Columbia has provided WARN use to Federal agencies to facilitate emergency coordination among Federal and District personnel. In addition, we have also included quotes as part of a wireless broadband application assessment conducted by the NCRIP. The assessment of various NCR public safety personnel expressed the pent up demand for broadband capabilities.

“WARN has had a tremendous impact in our ability to access and transfer critical information to and from our mobile command center. It has provided our mobile units with a fast, simple, and reliable means through which to send and receive digital information. The ability to transmit live streaming video or access our GIS server from the field, has proven invaluable to senior management in their decision making process. We look forward to the day (when) WARN has expanded throughout the NCR.”—DC Emergency Management Agency

“For F/EMS users, it should be expanded to all EMS Operations Supervisors”—DC Fire and Emergency Medical Service

“This system continues to be an asset to our agency. Without it, there are times we would be much less efficient in our operations”—DC Fire and Emergency Medical Service



“Mobile Command HQ used/relied on our WARN connection HEAVILY during the recent IMF/World Bank and Anti-War Demonstrations. The system worked flawlessly in spite of our “difficult” location (adjacent to the West Wing).—U.S. Park Police

“I have also used the WARN network on multiple National Security Events, special events, and emergency responses to track unit status information in real time, to access the (CBRN Detection) System, to compile data, and access the internet and send and receive emails.”—DC Fire and Emergency Services

“An incident commander makes 90% of a fire assessment within 15 seconds of arriving on the scene. If we can see a fire before we arrive - via helicopter camera feeds, traffic cameras, civilian picture phones, or the media, then our response time can mean the difference between life and death and can turn a major fire into much shorter event by getting the right people and equipment to the scene sooner.”—Prince George’s Fire Department

“The WARN system has provided video feedback to our Fire Operations Center and Field Command Unit during many simulated emergencies and terrorist drills over the past year. This allows our senior staff and command officers to get a live view of the incident and operations, when enhances our capabilities to respond effectively to emergency incidents. It also allows us to quickly obtain valuable information and to reduce our reaction time tremendously.” — DC Fire and Emergency Services

"In August of 2005 while working a RFK stadium event, MPD had Thirty-two officers spread out over three miles of property on security posts. At approximately 1800 hours the weather looked clear and sunny, but in the distance I heard a rumble of thunder. I went to my laptop and over the WARN system access (sic) the FAA radar out of Manassas Virginia. A very fast moving storm was approaching with hundreds of lighting strikes. In seeing the danger of the coming storm on the radar and having officers out in the open in loud places not being able to hear the radio, I again went to the laptop for help. I paged the officers in the field to take cover. All of the officers were contacted and within five minutes a severe storm was upon us. The WARN system help me contact these officers in a timely fashion to get them out of harms way.” – DC Metropolitan Police Department

7.2 NCR is a top terrorist target. In July of 2004, the Homeland Security Council (HSC), in partnership with the Department of Homeland Security, released a master planning document containing fifteen all-hazards planning scenarios for use in national, federal, state, and local homeland security preparedness activities. While these were designed for use throughout the country it was specifically noted that “certain areas have special concerns, (especially) continuity of government in Washington, D.C.¹⁴”. Unfortunately the NCR is probably the most attractive terrorist target in the country. Not only is it the seat of government, and a rich symbolic target, it is also the Southern anchor of the “Northeast Corridor” – the densely populated portion of the country that extends from Boston to Washington via New York. The District itself is the 27th largest US city in terms of population (554k) and several of the surrounding

¹⁴ *Executive Summaries Created for Use in National, Federal, State, and Local Homeland Security Preparedness Activities*, The Homeland Security Council, David Howe, Senior Director for Response and Planning, July 2004



counties have larger populations. The total population of the NCR is 3,384,530¹⁵; however, this figure does not include the significant tourist population that the NCR supports year round as well as commuters from outside the NCR.

7.3 No public safety licensees will be disenfranchised as a result of this waiver. The plan presented herein provides all Region 20 licensees with wideband or broadband channels. Any plans of the surrounding regions could accommodate the shifted use of spectrum. In fact, the 1.25 MHz of spectrum used by the NCR could obviate twelve 150 kHz channel assignments or 1.8 MHz. As more entities adopt spectrally efficient and high frequency use broadband technologies, more spectrum can be made available for additional broadband capacity and use in all areas.

7.4 Better value for public safety and taxpayers. The NCR has determined that use of this valuable spectrum for broadband instead of wideband systems is a more cost effective. When funding for public safety radio systems is scarce, any approach “stretching” the funding further is valuable. In this case the NCR has determined that the construction costs of the RWBN to be roughly one-sixth of a wideband network providing similar coverage in the NCR.

There will also be cost savings in the operation of the RWBN when compared with the use of commercial services. When comparing these costs the cross over point where use of the RWBN becomes less expensive is about 8,500 users. Both before and after this point the incremental costs of operating the RWBN remain relatively flat, while the operating costs of a commercial solution continue to rise dramatically.

Savings, particularly in the phases after initial operating capability, could be reallocated – either to expand in-building coverage throughout the NCR or to fund implementation of broadband in other “top target” areas.

8. Conclusion

The need for wireless high-speed data with ubiquitous coverage dedicated to emergency functions is significant, growing, and immediate. The National Capital Region seeks to provide an infrastructure to address this need on a highly available, dedicated, and cost-effective basis using existing spectrum allocated to public safety. A few rule changes are required to accommodate this need to provide cost effective, wide-area broadband speeds. These rule changes will dramatically enhance NCR emergency response operations and have no operational effect on our neighbors. Therefore, this request is in the best interest of the public we seek to protect and serve. These rule changes are also in accordance with those proposed at a national level, and therefore, will provide the nation with a view on how coexistence of wideband and broadband can occur. We are confident that the ultimate rules will be consistent with our implementation, and therefore, we propose we will modify this system to accommodate the rules within

¹⁵ Figures compiles using 2000 Census data



one year of rulemaking. As we have seen following the aftermath of 9/11¹⁶, Katrina, and the Northeast blackout, public safety needs reliable data services.

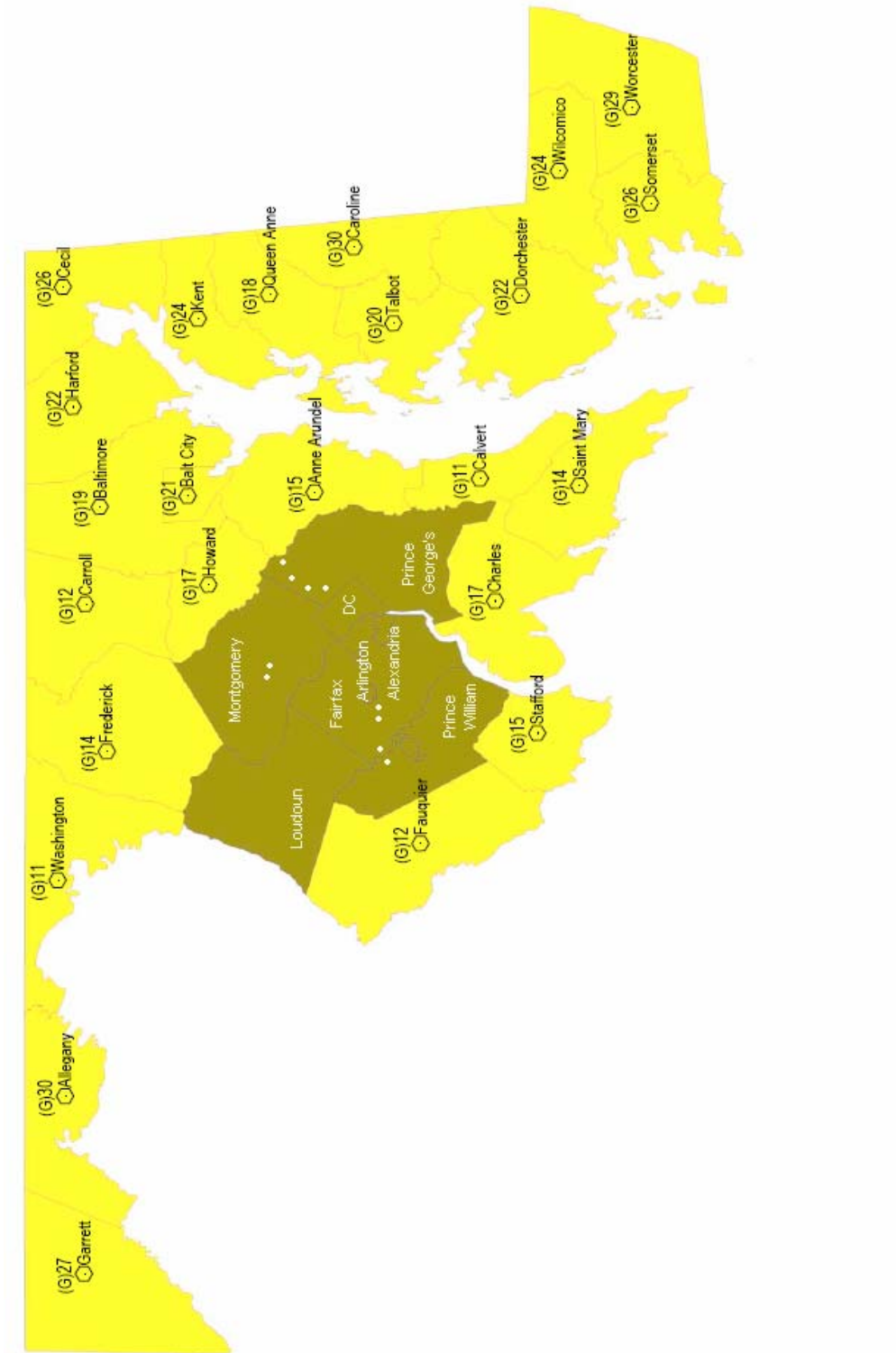
We urge all interested parties to please help us provide the first responders that protect residents and visitors of the NCR with better tools than those already available to those who would harm us.

¹⁶ On 9/11, the District of Columbia sent a Deputy Fire Chief in a police helicopter to survey the Pentagon tragedy from the air and assist fire suppression operations. If the NCR had the proposed network on 9/11, it could have provided real-time streaming video from the helicopter to all units on the ground. Even with a trained firefighter providing interpretation, a picture would have been worth more than a thousand words.



Appendix A

Proposed Region 20 Public Safety Data Channel Allocation – Map





Proposed Region 20 Public Safety Data Channel Allocation

Map Group	Wide Band County Assignment	Base Start	Base End	Wide Band Channels 3 x 50 kHz	TV	Broad Band Channels 3 x 1.25 MHz	Base Start	Base End
G1	RESERVE	767.000	767.150	1-3	63	Lower GB	767.000	768.125
G2	RESERVE	767.150	767.300	4-6	63	Lower GB	"	"
G3	RESERVE	767.300	767.450	7-9	63	Lower GB	"	"
G4	RESERVE	767.450	767.600	10-12	63	Lower GB	"	"
G5	RESERVE	767.600	767.750	13-15	63	Lower GB	"	"
G6	RESERVE	767.750	767.900	16-18	63	Lower GB	"	"
G7	RESERVE	767.900	768.050	19-21	63	Lower GB	"	"
G8	RESERVE	768.050	768.200	22-24	63	01	768.125	769.375
G9	RESERVE	768.200	768.350	25-27	63	01	"	"
G10	INTEROP	768.350	768.500	28-30	63	01	"	"
G11	Washington	768.500	768.650	31-33	63	01	"	"
G11	Calvert	768.500	768.650	31-33	63	01	"	"
G12	Carroll	768.650	768.800	34-36	63	01	"	"
G12	Fauquier	768.650	768.800	34-36	63	01	"	"
G13	INTEROP	768.800	768.950	37-39	63	01	"	"
G14	Frederick	768.950	769.100	40-42	63	01	"	"
G14	St. Mary's	768.950	769.100	40-42	63	01	"	"
G15	Anne Arundel	769.100	769.250	43-45	63	01	"	"
G15	Stafford	769.100	769.250	43-45	63	01	"	"
G16	INTEROP	769.250	769.400	46-48	63	01	768.125	769.375
G17	Howard	769.400	769.550	49-51	63	02	769.375	770.625
G17	Charles	769.400	769.550	49-51	63	02	769.375	770.625
G18	Queen Anne's	769.550	769.700	52-54	63	02	"	"
G19	Baltimore	769.700	769.850	55-57	63	02	"	"
G20	Talbot	769.850	770.000	58-60	63	02	"	"
G21	Baltimore City	770.000	770.150	61-63	64	02	"	"
G22	Harford	770.150	770.300	64-66	64	02	"	"
G22	Dorchester	770.150	770.300	64-66	64	02	"	"
G23	>open<	770.300	770.450	67-69	64	02	"	"
G24	Kent	770.450	770.600	70-72	64	02	"	"
G24	Wicomico	770.450	770.600	70-72	64	02	"	"
G25	INTEROP	770.600	770.750	73-75	64	02	769.375	770.625
G26	Cecil	770.750	770.900	76-78	64	03	770.625	771.875
G26	Somerset	770.750	770.900	76-78	64	03	770.625	771.875
G27	Garrett	770.900	771.050	79-81	64	03	"	"
G28	INTEROP	771.050	771.200	82-84	64	03	"	"
G29	Worcester	771.200	771.350	85-87	64	03	"	"
G30	Caroline	771.350	771.500	88-90	64	03	"	"
G30	Allegany	771.350	771.500	88-90	64	03	"	"
G31	INTEROP	771.500	771.650	91-93	64	03	"	"
G32	RESERVE	771.650	771.800	94-96	64	03	"	"



G33	RESERVE	771.800	771.950	97-99	64	03	770.625	771.875
G34	RESERVE	771.950	772.100	100-102	64	Upper GB	771.875	773.000
G35	RESERVE	772.100	772.250	103-105	64	Upper GB	"	"
G36	RESERVE	772.250	772.400	106-108	64	Upper GB	"	"
G37	RESERVE	772.400	772.550	109-111	64	Upper GB	"	"
G38	RESERVE	772.550	772.700	112-114	64	Upper GB	"	"
G39	RESERVE	772.700	772.850	115-117	64	Upper GB	"	"
G40	RESERVE	772.850	773.000	118-120	64	Upper GB	771.875	773.000
Map Group	Wide Band County Assignment	Mobile Start	Mobile End	Wide Band Channels 3 x 50 kHz	TV	Broad Band Channels 3 x 1.25 MHz	Mobile Start	Mobile End
G1	RESERVE	797.000	797.150	121-123	68	Lower GB	797.000	798.125
G2	RESERVE	797.150	797.300	124-126	68	Lower GB	"	"
G3	RESERVE	797.300	797.450	127-129	68	Lower GB	"	"
G4	RESERVE	797.450	797.600	130-132	68	Lower GB	"	"
G5	RESERVE	797.600	797.750	133-135	68	Lower GB	"	"
G6	RESERVE	797.750	797.900	136-138	68	Lower GB	"	"
G7	RESERVE	797.900	798.050	139-141	68	Lower GB	"	"
G8	RESERVE	798.050	798.200	142-144	68	04	798.125	799.375
G9	RESERVE	798.200	798.350	145-147	68	04	"	"
G10	INTEROP	798.350	798.500	148-150	68	04	"	"
G11	Washington	798.500	798.650	151-153	68	04	"	"
G11	Calvert	798.500	798.650	151-153	68	04	"	"
G12	Carroll	798.650	798.800	154-156	68	04	"	"
G12	Fauquier	798.650	798.800	154-156	68	04	"	"
G13	INTEROP	798.800	798.950	157-159	68	04	"	"
G14	Frederick	798.950	799.100	160-162	68	04	"	"
G14	St. Mary's	798.950	799.100	160-162	68	04	"	"
G15	Anne Arundel	799.100	799.250	163-165	68	04	"	"
G15	Stafford	799.100	799.250	163-165	68	04	"	"
G16	INTEROP	799.250	799.400	166-168	68	04	798.125	799.375
G17	Howard	799.400	799.550	169-171	68	05	799.375	800.625
G17	Charles	799.400	799.550	169-171	68	05	"	"
G18	Queen Anne's	799.550	799.700	172-174	68	05	"	"
G19	Baltimore	799.700	799.850	175-177	68	05	"	"
G20	Talbot	799.850	800.000	178-180	68	05	"	"
G21	Baltimore City	800.000	800.150	181-183	69	05	"	"
G22	Harford	800.150	800.300	184-186	69	05	"	"
G22	Dorchester	800.150	800.300	184-186	69	05	"	"
G23	>open<	800.300	800.450	187-189	69	05	"	"
G24	Kent	800.450	800.600	190-192	69	05	"	"
G24	Wicomico	800.450	800.600	190-192	69	05	"	"



G25	INTEROP	800.600	800.750	193-195	69	05	799.375	800.625
G26	Cecil	800.750	800.900	196-198	69	06	800.625	801.875
G26	Somerset	800.750	800.900	196-198	69	06	"	"
G27	Garrett	800.900	801.050	199-201	69	06	"	"
G28	INTEROP	801.050	801.200	202-204	69	06	"	"
G29	Worcester	801.200	801.350	205-207	69	06	"	"
G30	Caroline	801.350	801.500	208-210	69	06	"	"
G30	Allegany	801.350	801.500	208-210	69	06	"	"
G31	INTEROP	801.500	801.650	211-213	69	06	"	"
G32	RESERVE	801.650	801.800	214-216	69	06	"	"
G33	RESERVE	801.800	801.950	217-219	69	06	800.625	801.875
G34	RESERVE	801.950	802.100	220-222	69	Upper GB	801.875	803.000
G35	RESERVE	802.100	802.250	223-225	69	Upper GB	"	"
G36	RESERVE	802.250	802.400	226-228	69	Upper GB	"	"
G37	RESERVE	802.400	802.550	229-231	69	Upper GB	"	"
G38	RESERVE	802.550	802.700	232-234	69	Upper GB	"	"
G39	RESERVE	802.700	802.850	235-237	69	Upper GB	"	"
G40	RESERVE	802.850	803.000	238-240	69	Upper GB	801.875	803.000



Appendix B-1 (District of Columbia)

03/18/2006 10:25 FAX 202 673 3501

RCFMS COMMUNICATIONS

4/4/02

Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

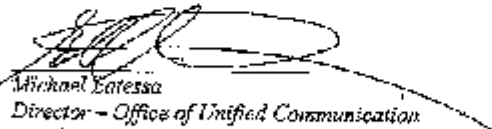
WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:


Michael Eatessa
Director - Office of Unified Communication
202-671-3549
District of Columbia - Public safety Communication

3/17/06



Appendix B-2 (City of Fairfax)



Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations, and


WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter

Adopted by the National Capital Region Member:


Gail Bohan
Director of Information Technology
Fairfax City, VA

Appendix B-3 (Loudoun County)



Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

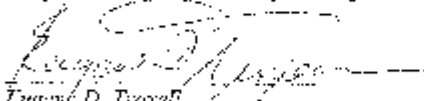
WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commission's rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:


Eugene D. Frowd
Director of Information Technology
Loudoun County, Virginia

Appendix B-4 (Montgomery County)



Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

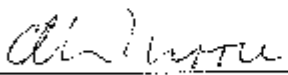
WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:


Allison K. Moore
Chief Information Officer
Montgomery County, MD



Appendix B-5 (Prince George's County)

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

WHEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:

Charles W. Wilson, Director/CIO
Office of Information Technology and Communications
Prince George's County, Maryland
Date: _____

NOTE: The above signature does not, in any way, obligate Prince George's County to participate in the National Capital Region broadband network initiative.



Appendix B-6 (Prince William County)

MAR-21--2006 13:27

PLC OFFICE OF MAPPING

703 792 7192

P.01/01

Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:

Masood Noorbakhsh
CIO
Prince William County

March 21, 2006

0162 P.01



Appendix B-7 (City of Rockville)



Mar 24 08 04:18PM

City of Rockville-IT Dept 240-314-8178

P. 2

Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commission's rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member.



Michael Q. Curran
Director of Information and Technology
City of Rockville, MD

TITLE

ESTABLISHED

REPTER/REP

FILED 01/24/2008 12:35:00



Appendix B-8 (City of Takoma Park)

NPR-06-2006 15:27

CITY OF TAKOMA PARK MD.

321 270 9794

P.02/22

Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public; and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:


Juan Castillo
Information Systems Manager
City of Takoma Park, Maryland

TOTAL P.02



Appendix B-9



05/19/2006 14:13

7038386343

CITY MANAGER'S OFC

PAGE 02/02

Appendix B

Memorandum of Support for Regional Wireless Broadband Network (RWBN)

WHEREAS, the National Capital Region has devised a program with the goal of creating a regional wireless broadband network that organizations across the region can use to share critical data and information during emergencies and day to day operations; and

WHEREAS, the Regional Wireless Broadband Network (RWBN) is the approved program of the National Capital Region; and

WHEREAS, the current rules in 47CFR90.531 do not currently have provisions for licensing and operations of broadband wireless public safety networks and include other provisions that would preclude implementation and operations of broadband wireless networks; and

THEREFORE, BE IT RESOLVED, that we enter into this memorandum of support from the date(s) of our signature(s) to petition the Federal Communications Commission for a waiver from the commissions rules regarding the use and aggregation of public safety data channels which we believe to be in the best interest of the public, and which would enable implementation and operations of the RWBN throughout the NCR; and

BE IT FURTHER RESOLVED, that this memorandum of support will be attached to the National Capital Region waiver application package, as this group, created by us, represents our interests in this matter.

Adopted by the National Capital Region Member:

Jim Hartmann
City Manager
Alexandria, VA



Appendix C

NCR Letter Supporting Request by Channel 64 (WZDC-LP) For Relocation

21 March 2006

Federal Communications Commission
Hossein Hashemzadeh, Associate Division Chief
Media Bureau – Low Power branch
445 12th St., SW
Washington, DC 20554

RE: NCR Public Safety Support for WZDC-LP Channel Request
REF: File Number BDISTTL-20060213ABC

Dear Mr. Hashemzadeh,

The National Capital Region (NCR) is a group of six counties and eleven cities proximate to the Nation's Capital including the District of Columbia. I am writing you as both the Executive Director for the NCR's Regional Wireless Broadband Network (RWBN), and the Deputy Chief Technology Officer of the District of Columbia. Later this year, subject to FCC approval, the NCR will begin deployment of the nation's first region-wide wireless broadband public safety network.

WZDC-LP, owned by Onda Capital, Inc. (Onda), operates within the District of Columbia, broadcasting on channel 64, which is in the spectrum required for the RWBN. Since WZDC-LP holds a low power license, they operate on a secondary basis to public safety and would have to ensure they did not interfere with public safety networks – on a practical basis this would require them to cease operations when we begin operations of the RWBN. While we will need channel 64 cleared later this year, we would prefer to have this happen in a manner that does not displace WZDC-LP or their audience.

We believe it is in the public interest for Onda to be provided an alternate channel assignment outside the [public safety 700 MHz spectrum at the earliest opportunity; to clear the way for the RWBN and other regional public safety radio networks, as well as to allow WZDC-LP to continue to serve a growing market segment in the Washington DC metro area. We request that the Commission carefully consider Onda's application cited above, and if for any reason cannot accommodate this application, that the Commission find an alternate home for WZDC-LP.

Sincerely,

Robert LeGrande II

National Capital Region Interoperability Program / Deputy Chief Technology Officer, District of Columbia

cc: Eduardo Zavala, Onda Capital, Inc.
Wayne McBride, Radio Manager, Prince George's County Maryland



Appendix D

NCR Letter Supporting Request by Channel 68 (WJAL) For Relocation

04 April 2006

Federal Communications Commission
Clay Pendarvis, Associate Division Chief
Media Bureau
445 12th St., SW
Washington, DC 20554

RE: NCR Public Safety Support for WJAL Channel Request
REF: File Number BPRM-20021003ACN

Dear Mr. Pendarvis,

The National Capital Region (NCR) is a group of six counties and eleven cities proximate to the Nation's Capital including the District of Columbia. I am writing you as both the Executive Director for the NCR's Regional Wireless Broadband Network (RWBN), and the Deputy Chief Technology Officer of the District of Columbia. Later this year, subject to FCC approval, the NCR will begin deployment of the nation's first region-wide wireless broadband public safety network.

WJAL, owned by Entravision Holdings, LLC (Entravision), operates from Hagerstown MD, broadcasting on channel 68, which is in the spectrum required for the public safety communications systems. To facilitate implementation of these systems, we are supportive of efforts that would result in WJAL being able to move off their current analog channel before the firm DTV transition date of 17 February 2009, and we would prefer to have this happen in a manner minimizing disruption to WJAL or their audience.

We believe it is in the public interest for Entravision to be provided an alternate channel assignment outside the public safety 700 MHz spectrum at the earliest opportunity; to clear the way for the RWBN and other regional public safety radio networks, as well as to allow WJAL to continue to serve it's viewers. We request that the Commission carefully consider the Entravision application cited above, and if for any reason cannot accommodate this application, that the Commission find an alternate home for WJAL.

Sincerely,

Robert LeGrande II
National Capital Region Interoperability Program / Deputy Chief Technology Officer, District of Columbia
cc: Barry A. Friedman, Thompson Hine LLP



Appendix 6: Metropolitan Washington Council of Governments Rider Clause

A.6. Council of Governments Rider Clause

USE OF CONTRACT(S) BY MEMBERS COMPRISING THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS PURCHASING OFFICERS' COMMITTEE.

- A. If authorized by the bidder(s), resultant contract(s) will be extended to any or all of the listed members as designated by the bidder to purchase at contract prices in accordance with contract terms.
- B. Any member utilizing such contract(s) will place its own order(s) directly with the successful contractor. There shall be no obligation on the part of any participating member to utilize the contract(s).
- C. A negative reply will not adversely affect consideration of your bid/proposal.
- D. It is the awarded vendor's responsibility to notify the members shown below of the availability of the Contract(s).
- E. Each participating jurisdiction has the option of executing a separate contract with the awardee. Contracts entered into with a participating jurisdiction may contain general terms and conditions unique to that jurisdiction including, by way of illustration and not limitation, clauses covering minority participation, non-discrimination, indemnification, naming the jurisdiction as an additional insured under any required Comprehensive General Liability policies, and venue. If, when preparing such a contract, the general terms and conditions of a jurisdiction are unacceptable to the awardee, the awardee may withdraw its extension of the award to that jurisdiction.
- F. The issuing jurisdiction shall not be held liable for any costs or damages incurred by another jurisdiction as a result of any award extended to that jurisdiction by the awardee.

In pricing section of contract:

BIDDER'S AUTHORIZATION TO EXTEND CONTRACT:

YES NO JURISDICTION

___ ___ Government of the State of Virginia
___ ___ Governments within the State of Virginia
___ ___ Government of the State of Maryland
___ ___ Governments within the State of Maryland
___ ___ Government of the District of Columbia
___ ___ Governments within the District of Columbia
___ ___ Government of the State of Arizona
___ ___ Governments within the State of Arizona
___ ___ Government of the State of California
___ ___ Governments within the State of California
___ ___ Metropolitan Washington Airports Authority
___ ___ Metropolitan Washington Council of Governments
___ ___ Washington Metropolitan Area Transit Authority
___ ___ Public Safety Agencies of the Federal Government

Vendor Name



Section K. Representations, Certifications and Other Statements of Offerors

K.1. Authorized Negotiators

The offeror represents that the following persons are authorized to negotiate on its behalf with the District in connection with this request for proposals: (list names, titles, and telephone numbers of the authorized negotiators).

K.2. Type of Business Organization

The offeror, by checking the applicable box, represents that

(a) It operates as:

- ☐ a corporation incorporated under the laws of the State of: _____
- ☐ an individual,
- ☐ a partnership,
- ☐ a nonprofit organization, or
- ☐ a joint venture.

(b) If the offeror is a foreign entity, it operates as:

- ☐ an individual,
- ☐ a joint venture, or
- ☐ a corporation registered for business in _____
(Country)

K.3. EMPLOYMENT AGREEMENT

For all offers over \$100,000, except for those in which the Offeror is located outside the Washington Metropolitan Area and shall perform no work in the Washington Metropolitan Area, the following certification is required (see Clause 28 of the Standard Contract Provisions). The Offeror recognizes that one of the primary goals of the District government is the creation of job opportunities for bona fide District residents. Accordingly, the Offeror agrees to pursue the District's following goals for utilization of bona fide residents of the District of Columbia with respect to this contract and in compliance with Mayor's Order 83-265 and implementing instructions: (1) at least 51% of all jobs created as a result of this contract are to be performed by



employees who are residents of the District of Columbia; and (2) at least 51% of apprentices and trainees shall be residents of the District of Columbia registered in programs approved by the D.C. Apprenticeship Council. The Offeror also agrees to notify all perspective subcontractors, prior to execution of any contractual agreements, that the subcontractors are expected to implement Mayor's Order 83-265 in their own employment practices. The Offeror understands and shall comply with the requirements of The Volunteer Apprenticeship Act of 1978, D.C. Code sec. 32-1401 et seq., and the First Source Employment Agreement Act of 1984, D.C. Code sec. 2-219.01 et seq.

The Offeror certifies that it intends to enter into a First Source Employment Agreement with the District of Columbia Department of Employment Services (DOES). Under this First Source Employment Agreement, the Offeror shall use DOES as the first source for recruitment and referral of any new employees. The Offeror shall negotiate the First Source Employment Agreement directly with DOES. Nothing in this certification or the First Source Employment Agreement shall be construed as requiring the Offeror to hire or train persons it does not consider qualified based on standards the Offeror applies to all job applicants.

Name _____ Title_____

Signature _____ Date_____

K.4. CERTIFICATION AS TO COMPLIANCE WITH EQUAL OPPORTUNITY OBLIGATIONS

Mayor's Order 85-85, "Compliance with Equal Opportunity Obligations in Contracts", dated June 10, 1985 and the Office of Human Rights' regulations, Chapter 11, "Equal Employment Opportunity Requirements in Contracts", promulgated August 15, 1986 (4 DCMR Chapter 11, 33 DCR 4952) are included as a part of this solicitation and require the following certification for contracts subject to the order. Failure to complete the certification may result in rejection of the offeror for a contract subject to the order. I hereby certify that I am fully aware of the content of the Mayor's Order 85-85 and the Office of Human Rights' regulations, Chapter 11, and agree to comply with them in performance of this contract.

Offeror_____Date_____

Name_____Title_____

Signature_____



Offeror ____ has ____ has not participated in a previous contract or subcontract subject to the Mayor's Order 85-85. Offeror ____ has ____ has not filed all required compliance reports, and representations indicating submission of required reports signed by proposed subofferors. (The above representations need not be submitted in connection with contracts or subcontracts which are exempt from the Mayor's Order.)

K.5. Buy American Certification

The offeror hereby certifies that each end product, except the end products listed below, is a domestic end product (See Clause 23 of the SCP, "Buy American Act"), and that components of unknown origin are considered to have been mined, produced, or manufactured outside the United States.

_____	EXCLUDED END PRODUCTS
_____	COUNTRY OF ORIGIN

K.6. District Employees not to Benefit Certification

Each offeror shall check one of the following:

- _____ No person listed in Clause 13 of the SCP, "District Employees Not To Benefit" will benefit from this contract.
- _____ The following person(s) listed in Clause 13 may benefit from this contract. For each person listed, attach the affidavit required by Clause 13 of the SCP.

K.7. Certification of Independent Price Determination

- (a) Each signature of the offeror is considered to be a certification by the signatory that:
- 1) The prices in this contract have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any offeror or competitor relating to:
 - (i) those prices
 - (ii) the intention to submit a contract, or
 - (iii) the methods or factors used to calculate the prices in the contract.



Request for Proposal No. POTO-2006-R-0045

- 2) The prices in this contract have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before contract opening unless otherwise required by law; and
 - 3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit a contract for the purpose of restricting competition.
- (b) Each signature on the offer is considered to be a certification by the signatory that the signatory:
- 1) Is the person in the offeror's organization responsible for determining the prices being offered in this contract, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or
 - 2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above:

(insert full name of person(s) in the organization responsible for determining the prices offered in this Contract and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2) have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above.
- (c) If the offeror deletes or modifies subparagraph (a)(2) above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

K.8. Tax Certification

Each offeror must submit with its offer, a sworn Tax Certification Affidavit, incorporated herein as Attachment J.4.



Section L. Instructions, Conditions and Notices to Offers

L.1. Contract Award

L.1.1. Most Advantageous to the NCR

The DC-OCP may award a single contract or multiple contracts resulting from this solicitation to the responsible offeror(s) whose offer(s) conforming to the solicitation will be most advantageous to the DC-OCP, cost or price, technical and other factors, specified elsewhere in this solicitation considered.

L.1.2. Initial Offers

The DC-OCP may award contracts on the basis of initial offers received, without discussion. Therefore, each initial offer should contain the Offeror's best terms from a standpoint of cost or price, technical and other factors.

L.2. Proposal Format Organization and Content

A. One original and nine (9) copies of the written proposals shall be submitted in two parts, titled "Technical Proposal" and "Price Proposal". The technical and price proposals MUST be submitted separately and clearly marked. A CD-ROM containing the Proposal files in Adobe format, or other mutually agreed upon file format, shall be provided with each written proposal. In any case of discrepancy between formats, the original written proposal shall control.

B. Proposals shall be typewritten in 12 point font size on 8.5" by 11" bond paper. Telephonic and telegraphic proposals will not be accepted. Each proposal shall be submitted in a sealed envelope conspicuously marked: "Proposal in Response to Solicitation No. POTO-2006-R-0045 – NCR Interoperability Program Wireless Broadband Network.

C. Offerors are directed to the specific proposal evaluation criteria found in Section M of this solicitation, EVALUATION FACTORS FOR AWARD. The Offeror shall respond to each factor in a way that will allow the District to evaluate the Offeror's response. The offeror shall submit information in a clear, concise, factual and logical manner providing a comprehensive description of program services and service delivery. The information requested below for the technical proposal shall facilitate evaluation and best value source selection for all proposals. The technical proposal must contain sufficient detail to provide a clear and concise representation of the requirements in the statement of work.



D. Proposal Format and Organization

Offeror's Proposal shall follow the following format.

D.1. SECTION 1: COVER LETTER AND EXECUTIVE SUMMARY

Section 1 of the proposal document shall contain a cover letter providing an introduction to the attached proposal response and stating that the proposal meets the Owner's requirements. The cover letter shall be signed by a person authorized to make the proposal by the Proposer's company. This section shall also contain an Executive Summary overview of the system, equipment and services proposed.

D.2. SECTION 2: TABLE OF CONTENTS

Section 2 of the proposal document shall contain a complete table of contents for the proposal and cross referenced with the SOW.

D.3. SECTION 3: MANDATORY SUBMITTALS

Section 3 of the proposal document shall contain all mandatory submittals for bonding, insurance, affidavits and other required certificates or statements.

D.4. SECTION 4: PROPOSER'S QUALIFICATIONS

Section 4 of the proposal document shall contain descriptions of the Offeror's qualifications to execute this project, provide resumes of key personnel who will work on the project, etc.

D.5. SECTION 5: COMPLIANCE MATRIX

Section 5 of the proposal document shall contain compliance statements on both a general and on a paragraph-by-paragraph basis. Offeror shall explicitly state that their offering is fully compliant with the requirements except as specifically noted.

D.5.1. In addition, offerors shall supply one of the following statements in response to each numbered paragraph or section of the RFP.

§ COMPLY - A response statement of "COMPLY" shall be used if the proposal meets or exceeds all of the specified requirements.

§ COMPLY WITH EXCEPTION - A statement of "COMPLY WITH EXCEPTION" shall be used if most, but not all of the specified requirements are met. The requirements which are not met must be explained in detail.



§ EXCEPTION - A statement of "EXCEPTION" shall be used if the proposal does not substantially meet the specified requirements. Failure to indicate any exceptions shall be interpreted that the offeror fully intends to comply with all RFP requirements as written. Explanation must be made for each item for which exception is taken, giving in detail the extent of the exception, and the reason for which it is taken. DC-OCP reserves the right to give consideration or waivers for these exceptions.

D.5.2. Additional explanation, description, or clarification may be supplied to amplify the above responses, however the statement of COMPLY, COMPLY WITH EXCEPTION, or EXCEPTION shall control.

D.6 SECTION 6: DESCRIPTION OF SYSTEM AND SERVICES

Section 6 of the Proposal shall contain a detailed description of the proposed system and services to be provided. Block diagrams, equipment layouts, and equipment lists shall be included to provide a complete and comprehensive description. Offerors may include information describing additional functionality, competitive advantages, and/or cost effectiveness of their system, even if not required by this RFP.

D.7. SECTION 7: DESCRIPTION OF PROPOSED EQUIPMENT AND SOFTWARE

Section 7 of the proposal document shall contain the detailed description of the system component equipments including cut sheets, specifications, manuals, diagrams, etc.

D.8. SECTION 8: PROJECT IMPLEMENTATION

a. Section 8 of the proposal document shall provide information on project implementation including project management approach, project team, detailed description of work to be performed, project schedule, etc.

b. Offerors shall submit a project timetable including the delivery schedule and installation of all equipment from award of contract to final acceptance. This project schedule must detail the installation at each location identified.

D.9. SECTION 9: ADDITIONAL INFORMATION

Section 9 of the proposal document shall contain additional information which offeror believes will materially augment the proposal but which does not fall into any of the above categories.



D.10 SECTION 10: PRICING

- a. Section 10 of the proposal document shall contain itemized system and equipment pricing using the sheets and formats as contained in Section B for both the BASE YEAR and all OPTIONS. The pricing section shall be provided in a separate binder within the sealed package.
- b. No OPTIONS shall be included in the BASE YEAR amount. OPTIONS shall be priced separately.
- c. Failure to price all available items could result in disqualification of your response.

L.2.1. Proposal Content

- a) All requested information and submittals shall be provided with the Proposal, except as specifically requested to be provided “post-award”.
- b) Provide other information related to the upgrades, to be provided as options, or for clarifying purposes.
- c) Provide complete and detailed information for each strategy proposed in order to expedite this process and achieve COTR’s schedule requirements. Propose other alternatives not listed here, which in the Offeror’s opinion, may be considered by the COTR. However, ensure that the numbering format is closely followed to ease inter-comparison of proposals.
- d) If the Offeror proposes additional system design alternatives, provide detailed information including descriptions, diagrams, and pricing in the response submission. Clearly indicate it is a design alternative and identify any cost/benefit of the proposed alternative(s).

L.2.2. Project Schedule

- a) Provide a detailed, Critical Path Method (CPM) project schedule that addresses all items on the critical path including identification of all major tasks, milestones, and long lead items.
- b) Identify on the schedule any upgrades that can be implemented and placed in service before final acceptance of the system.
- c) Provide all assumptions used in calculating the schedule. These assumptions will be validated by the COTR to assist in a final schedule agreement.

L.2.3. Detailed Equipment Lists / Long Lead Items

- a) Provide detailed equipment lists for the proposed system configuration(s).



- b) Identify long lead items and minimum ordering dates for these items that would facilitate implementation of a compressed schedule if necessary.

L.2.4. System Requirements

- a) Identify proposed capabilities relative to the existing system. All deviations from existing system capabilities shall be noted and explained in the proposal.
- b) Describe how the system upgrade meets each requirement.
- c) Provide a detailed description of any system functions that the proposed system is capable of providing even though not specifically requested by this RFP.

L.2.5. Turnkey and non-Turnkey Proposals

- a) Provide complete information and pricing for all proposed equipment and services.
- b) Provide complete description of the total system design including any and all subsystem components.
- c) Describe all systems necessary to meet this specification.
- d) Describe all full turnkey and non-turnkey installation and optimization services for all systems, subsystems and components.
- e) Describe one (1) year warranty maintenance commencing upon final system acceptance by DC-OCP.
- f) Describe any optional extended warranties.
- g) Describe all environmental and operational upgrades including heat, cooling, electrical, and grounding, etc.
- h) Describe fully how the requirements for the following areas will be met:
 - (i) Adherence to any applicable Federal, State, and local laws, ordinances, or regulations governing work to be performed and/or the systems to be supplied.
 - (ii) "As-built" documentation of system/subsystem design, installation, optimization, testing, etc. including:
 - (iii) Other "as-built" documentation required for maintenance and repair.
 - (iv) Testing of equipment, etc.
 - (v) Documentation of testing and acceptance testing results.
 - (vi) Engineering and planning related to system cutover.
 - (vii) Demonstration of the performance and operation of all systems, subsystems, and field equipment according to proposal / specification.
 - (viii) Demonstration of radio coverage according to specifications. (Field observation or field measurement).
 - (ix) Operation and maintenance and software manuals per contract.
 - (x) Training (levels of operational through maintenance).



- (xi) Coordination between the NCR, Engineer, Offeror, and all subofferors to assure implementation of a Public Safety Communications quality system delivered on budget and on schedule.

L.2.6. Offeror Project Management Services

- a) Fully describe proposed Project Management Services.
- b) Provide complete information on Project team personnel.
- c) Provide three (3) project references for the designated Project Manager.
- d) Provide the names and positions of the individuals that will be assigned to this project and the manner in which each will participate in the overall implementation of this project.
- e) Provide resumes of all key project participants.

L.2.7. Training

- a) Describe in detail standard operational, user, system administrator and maintenance training programs, including all delivered manuals, handbooks, drawings, and CD based materials, etc.
- b) Provide a preliminary training schedule for review and approval by DC-OCP.

L.2.8. System Cutover and Transition Planning

Submit preliminary cutover plan with Proposal.

L.2.9. System Documentation

- a) Provide an overall system block diagram that represents the proposed system configuration.
- b) Provide equipment drawings detailing equipment connectivity and rack elevation drawings for the proposed system configuration.
- c) All equipment in the equipment list shall be shown and referenced on the drawings.

L.2.10. Maintenance and Warranty

- a) Describe recommended enhancements or modifications that will improve availability, reliability, and performance, and/or lower overall operating costs for NCR RWBN.
- b) Service Contract Options: Provide a detailed description of the services offered. This shall include preventative maintenance on the fixed infrastructure and emergency services response on the fixed infrastructure.
- c) Fully describe, in detail, any conditions under which the warranty terms may be voided, due to action or inaction by DC-OCP. Examples include maintenance or repair work done by others, etc.



- d) Parts Availability: Describe process to escalate and expedite repair activities.

L.2.11. Quality of Work

Describe how requirements will be met.

L.2.12. Safety

Describe how requirements will be met.

L.3. Proposal Submission Data and Time and Late Submissions, Late Modifications, and Late Withdrawals

L.3.1. Proposal Submission Time

Proposals must be submitted no later than 2:00 p.m. Eastern Time September 20, 2006 unless changed by any amendment to the RFP. Proposals, modifications to proposals, or requests for withdrawals that are received in the designated District office after the exact local time specified, are "late" and shall be considered only if they are received before the award is made and one (1) or more of the following circumstances apply:

- a) The proposal or modification was sent by registered or certified mail no later than the fifth (5th) calendar day before the date specified for receipt of offers;
- b) The proposal or modification was sent by mail and it is determined by the Contracting Officer that the late receipt at the location specified in the solicitation was caused by mishandling by the District after receipt; or
- c) The proposal is the only proposal received.

L.3.2. Postmarks

The only acceptable evidence to establish the date of a late proposal, late modification or late withdrawal sent either by registered or certified mail shall be a U.S. or Canadian Postal Service postmark on the wrapper or on the original receipt from the U.S. or Canadian Postal Service. If neither postmark shows a legible date, the proposal, modification or withdrawal shall be deemed to have been mailed late. When the postmark shows the date but not the hour, the time is presumed to be the last minute of the date shown. If no date is shown on the postmark, the proposal shall be considered late unless the offeror can furnish evidence from the postal authorities of timely mailing.



L.3.3. Late Submissions

A late proposal, late request for modification or late request for withdrawal shall not be considered, except as provided in this section.

L.3.4. Late Modifications

A late modification of a successful proposal, which makes its terms more favorable to the District, shall be considered at any time it is received and may be accepted.

L.3.5. Late Proposals

A late proposal, late modification or late withdrawal of an offer that is not considered shall be held unopened, unless opened for identification, until after award and then retained with unsuccessful offers resulting from this solicitation.

L.3.6. Contractor Experience Questionnaire

This criterion considers documented references provided by the offeror. Offerors shall respond with 3 and **only** 3 references by providing contact information of recent or current customers. The Offeror shall demonstrate that it has successfully provided similar services to similar clients. Offeror must have the Contractor Experience Questionnaire Form (Section J.7.) completed by at least three (3) entities for whom similar services have been provided in the past. **This form must be submitted directly from the Offeror's reference to Maribel Torres, Contract Specialist via fax at 202-727-1679 or via email at maribel.torres@dc.gov** If more than three references are returned for a specific offeror, only the first three received will be considered.

L.3.7. Withdrawal or Modification of Proposals

An offeror may modify or withdraw its proposal upon written, telegraphic notice, or facsimile transmission if received at the location designated in the solicitation for submission of proposals, but not later than the closing date for receipt of proposals.

L.4. Hand Delivered or Mailing of Proposals

DELIVER OR MAIL TO:

Office of Contracting and Procurement
Office of the Chief Technology Officer



Attn: Maribel Torres
Bid Room, Suite 703
441 4th Street NW
Washington, DC 20001

M/F: RFP POTO-2006-R-0045
NCR Interoperability Program Wireless Broadband Network
Due: September 20, 2006, 2:00 PM Eastern Time

L.5. Explanation to Prospective Offerors

If a prospective offeror has any questions relative to this solicitation, the prospective offeror shall submit the question in writing to the Contact Person, identified on page one, in writing. The District may not consider any questions received less than 10 calendar days before the date set for submission of proposal. The District will furnish responses promptly to all other prospective offerors. An amendment to the solicitation will be issued if that information is necessary in submitting offers, or if the lack of it would be prejudicial to any other prospective offerors. Oral explanations or instructions given before the award of the contract will not be binding.

L.6. Failure to Submit Offers

Recipients of this solicitation not responding with an offer should not return this solicitation. Instead, they should advise the Contracting Officer, (see Clause G.7 for address) by letter or postcard whether they want to receive future solicitations for similar requirements. It is also requested that such recipients advise the Contracting Officer, of the reason for not submitting a proposal in response to this SOLICITATION. If a recipient does not submit an offer and does not notify the Contracting Officer, that future solicitations are desired, the recipient's name may be removed from the applicable mailing list.

L.7. Proposal Protests

Any actual or prospective bidder, offeror, or offeror who is aggrieved in connection with the solicitation or award of a contract, must file with the D.C. Contract Appeals Board (Board) a protest no later than 10 business days after the basis of protest is known or should have been known, whichever is earlier. A protest based on alleged improprieties in a solicitation which are apparent prior to bid opening or the time set for receipt of initial proposals shall be filed with the Board prior to bid opening or the time set for receipt of initial proposals. In procurements in which proposals are requested, alleged improprieties which do not exist in the initial solicitation, but which are subsequently incorporated into this solicitation, must be protested no later than the next closing time for receipt of proposals following the incorporation. The protest shall be filed in writing, with the Contract Appeals Board, 717 14th Street, N.W., Suite 430, Washington, D.C. 20004. The aggrieved person shall also mail a copy of the protest to the Contracting officer for the solicitation.



L.8. Signing of Offers

The Offeror shall sign the offer and print or type its name on the Solicitation, Offer and Award form of this solicitation. Erasures or other changes must be initialed by the person signing the offer. Offers signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the Contracting Officer.

L.9. Unnecessarily Elaborate Proposals

Unnecessarily elaborate brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the Offeror's lack of cost consciousness. Elaborate artwork, expensive paper and bindings, and expensive visual and other presentation aids are neither necessary nor desired

L.10. Retention of Proposals

All proposal documents will be the property of the District and retained by the District, and therefore will not be returned to the Offerors.

L.11. Proposal Costs

The District is not liable for any costs incurred by the Offerors in submitting proposals in response to this solicitation.

L.12. Acknowledgement of Amendments

The offeror shall acknowledge receipt of any amendment to this solicitation by (a) signing and returning the amendment; (b) by identifying the amendment number and date in the space provided for this purpose in Section K of the solicitation; or (c) by letter or telegram including mailgrams. The District must receive the acknowledgment by the date and time specified for receipt of offers. Offerors' failure to acknowledge an amendment may result in rejection of the offer.

L.13. Acceptance Period

The offeror agrees that its offer remains valid for a period of 180 days from the solicitation's closing date.

L.14. Prior and Pending Litigation

The offeror shall list and summarize in the Attachment Section of the proposal any criminal prosecution involved in, litigation between the company and the District of Columbia, Federal Government or any other entity, claims and litigation involving any bribery activities, class



actions involving discrimination complaints and antitrust suits and civil litigation within the last five (5) years involving the company, parent or subsidiary organization or any subofferor.

L.15. Best and Final Offers

If, subsequent to receiving original proposals, negotiations are conducted, all offerors within the competitive range will be so notified and will be provided an opportunity to submit written best and final offers at the designated date and time. Best and Final Offers will be subject to Late Submissions, Late Modifications and Late Withdrawals of Proposals provision of the solicitation. After receipt of best and final offers, no discussions will be reopened unless the Contracting Officer determines that it is clearly in the Government's best interest to do so, e.g., it is clear that information available at that time is inadequate to reasonably justify Offeror selection and award based on the best and final offers received. If discussions are reopened, the Contracting Officer shall issue an additional request for best and final offers to all Offerors still within the competitive range.

L.16. Legal Status of Offeror

Each proposal must provide the following information:

L.16.1. Name, Address, Telephone Number, Federal tax identification number and DUNS Number of Offeror;

L.16.2. A copy of each District of Columbia license, registration or certification that the offeror is required by law to obtain. This mandate also requires the offeror to provide a copy of the executed "Clean Hands Certification" that is referenced in D.C. Official Code §47-2862 (2001), if the offeror is required by law to make such certification. If the offeror is a corporation or partnership and does not provide a copy of its license, registration or certification to transact business in the District of Columbia, the offer shall certify its intent to obtain the necessary license, registration or certification prior to contract award or its exemption from such requirements; and



L.16.3.If the Offeror is a partnership or joint venture, names of general partners or joint ventures, and copies of any joint venture or teaming agreements.

L.16.4.The District reserves the right to request additional information regarding the Offeror's organizational status.

L.17. Standards of Responsibility

The prospective Offeror must demonstrate to the satisfaction of the District the capability in all respects to perform fully the contract requirements, therefore, the prospective Offeror must submit the documentation listed below, within five (5) days of the request by the District.

L.17.1.Furnish evidence of adequate financial resources, credit or the ability to obtain such resources as required during the performance of the contract.

L.17.2.Furnish evidence of the ability to comply with the required or proposed delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments.

L.17.3.Furnish evidence of the necessary organization, experience, accounting and operational control, technical skills or the ability to obtain them.

L.17.4.Furnish evidence of compliance with the applicable District licensing, tax laws and regulations.

L.17.5.Furnish evidence of a satisfactory performance record, record of integrity and business ethics.



L.17.6. Furnish evidence of the necessary production, construction and technical equipment and facilities or the ability to obtain them.

L.17.7. Furnish evidence of other qualifications and eligibility criteria necessary to receive an award under applicable laws and regulations.

L.17.8. If the prospective Offeror fails to supply the information requested, the Contracting Officer shall make the determination of responsibility or non responsibility based upon available information. If the available information is insufficient to make a determination of responsibility, the Contracting Officer shall determine the prospective Offeror to be non responsible.

L.18. PROPOSALS WITH OPTION YEARS

The offeror shall include option year prices in its price/cost proposal. An offer may be determined to be unacceptable if it fails to include option year pricing.

L.19. ELECTRONIC COPY OF PROPOSALS FOR FREEDOM OF INFORMATION ACT REQUESTS

In addition to other proposal submission requirements, the offeror must submit an electronic copy of its proposal, redacted in accordance with any applicable exemptions from disclosure in D.C. Official Code § 2-534, in order for the District to comply with Section 2-536(b) that requires the District to make available electronically copies of records that must be made public. The District's policy is to release documents relating to District proposals, subject to applicable FOIA exemption under Section 2-534(a)(1).

L.20. CERTIFICATES OF INSURANCE

The Contractor shall submit certificates of insurance giving evidence of the required coverages as specified in Section I.11 prior to commencing work. Evidence of insurance shall be submitted within fourteen (14) days of contract award to:



____ William E. Sharp, Contracting Officer
Office of Contracting and Procurement
Office of the Chief Technology Officer
441 4th Street NW, Suite 930 South
Washington, DC 20001
202 727-5274
William.Sharp@dc.gov

L.21. FAMILIARIZATION WITH CONDITIONS

Offerors shall thoroughly familiarize themselves with the terms and conditions of this solicitation, acquainting themselves with all available information regarding difficulties, which may be encountered, and the conditions under which the work is to be accomplished. Contractors will not be relieved from assuming all responsibility for properly estimating the difficulties and the cost of performing the services required herein due to their failure to investigate the conditions or to become acquainted with all information, schedules and liability concerning the services to be performed.

L.22. RESTRICTION ON DISCLOSURE AND USE OF DATA

Offerors who include in their proposal data that they do not want disclosed to the public or used by the District except for use in the procurement process shall mark the title page with the following legend:

L.22.1. This proposal includes data that shall not be disclosed outside the District and shall not be duplicated, used or disclosed in whole or in part for any purpose except for use in the procurement process.

If, however, a contract is awarded to this offeror as a result of or in connection with the submission of this data, the District will have the right to duplicate, use, or disclose the data to the extent consistent with the District's needs in the procurement process. This restriction does not limit the District's rights to use, without restriction, information contained in this proposal if it is obtained from another source. The data subject to this restriction are contained in sheets (insert page numbers or other identification of sheets)."

L.22.2 Mark each sheet of data it wishes to restrict with the following legend:



"Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

L.23. PRE-PROPOSAL QUESTIONS

L.23.1 Pre-proposal questions should be submitted in writing to Maribel Torres, Contract Specialist, via email at maribel.torres@dc.gov by 2:00 p.m. on **August 22, 2006**, at the Office of Contracting and Procurement, 441 4th Street, N.W. 700 South, Washington, DC 20001.

L.23.2. Official answers will be provided in writing to all prospective offerors who are listed on the official offerors' list as having received a copy of the solicitation. Answers will be posted on the OCP website at www.ocp.dc.gov.

SECTION M - Evaluation Factors

M.1. Evaluation for Award

M1.1. The contract will be awarded to the responsible offeror whose offer is most advantageous to the DC-OCP, based upon the evaluation criteria specified below. Thus, while the points in the evaluation criteria indicate their relative importance, the total scores will not necessarily be determinative of the award. Rather, the total scores will guide the DC-OCP in making an intelligent award decision based upon the evaluation criteria.

M1.2. The award decision shall be based on several factors, including price, operational risk, compliance with the technical and project management requirements as indicated in the section below.

M1.3 It is critical that the offeror provide complete and detailed information for this proposal in order to expedite this process and achieve DC-OCP's schedule requirements. The offeror is encouraged to propose other alternatives not listed here, which in the offeror's opinion, should be considered by DC-OCP. However, ensure that the "Requirements" numbering format is closely followed to allow comparison of proposals.

M1.4. If the offeror proposes additional system design alternatives, provide detailed information including descriptions, diagrams, and pricing in the response submission. Clearly indicate it is a design alternative and identify any cost/benefit of the proposed alternative(s).



- M.1.5.** The evaluation of responses received will include an initial review and a final detail review. The initial review will evaluate all submissions for conformance to stated specifications to eliminate all responses that deviate substantially from the basic intent and/or budget of the request, and that fail to satisfy the mandatory requirements.
- M.1.6.** In addition, the initial review will include a field demonstration of the capabilities of the proposed technology. This demonstration could take place before the delivery of the proposal, and at offeror's premises, if more convenient. The demonstration of the technology shall include at a minimum:
- a. A mobile streaming high resolution video link (forward and reverse links)
 - b. Multiple (6) concurrent mobile streaming high resolution video forward link transmissions.
 - c. Multiple (2) concurrent mobile streaming high resolution video reverse link transmissions.
 - d. Hand-off between different non-collocated sites during a communication
 - e. Measurement of data throughputs achieved as a function of received field strength level.

M.2. Technical Rating

The Technical Rating Scale is as follows:

<u>Numeric Rating</u>	<u>Adjective</u>	<u>Description</u>
1	Unacceptable	Fails to meet minimum requirements; major deficiencies which are not correctable.
2	Poor	Marginally meets minimum requirements; significant deficiencies which may be correctable.
3	Acceptable	Meets requirements; only minor deficiencies which are correctable.
4	Good	Meets requirements; no deficiencies.
5	Excellent	Exceeds most, if not all requirements; no deficiencies.

For example, if a sub factor has a point evaluation of 0 to 6 points, and (using the Technical Rating Scale) the District evaluates as "good" the part of the proposal applicable to the sub factor, the score for the sub factor is 4.8 (4/5 of 6). Each evaluation criteria will be given a score from the chart above, then weighted and then added together for ranking purposes.



M.3. Technical Evaluation Criteria (50 Points total)

Proposals will be evaluated based on the following technical evaluation factors listed in descending order of importance:

M.3.1. TECHNICAL CRITERIA (20 points total)

- a. Responsiveness to RFP requirements. This includes in particular:
 - i. Scope and extent of equipment and services the offeror includes in its proposal,
 - ii. Completeness of the information provided
- b. Demonstrated experience with similar projects. Key elements of the requested experience include:
 - i. Provision and deployment of wireless infrastructure,
 - ii. Management of wireless data network testing program,
 - iii. Operations and maintenance of wireless data networks,
 - iv. Management of NCR programs in a public safety environment.
- c. Demonstrated understanding of customer requirements. The NCR will pay particular attention to:
 - i. How the bidder's technology licensing plans and associated pricing scheme will allow other offerors to access similar markets at a reasonable cost,
 - ii. The vision the offeror has for evolution of the proposed technology (Road map),
 - iii. The flexibility and the financial commitment of the commercial proposal,
 - iv. How aggressive the proposed implementation schedule is.
- d. Sufficient level of detail for technical and pricing submittals. Specific attention will be given to:
 - i. The completeness and thoroughness of the information allowing to predict the system performance in a given environment,
 - ii. The sophistication of tools used to perform propagation and interference analysis, and how they have been calibrated,
 - iii. How the proposed testing plan and testing tools will allow to achieve the objectives stated in this RFP,
 - iv. The bidder's installation and construction standards,
 - v. The completeness of detail pricing as described in section B

M.3.2. EQUIPMENT AND SERVICES (30 points total)

- a. Compliance to the DC-OCP's technical specifications. Specific attention will be given to:



- i. Per user throughput and per site aggregated throughput performance,
 - ii. Coverage and service availability within the NCR,
 - iii. Weight, size, portability of the terminals
 - iv. The operations and maintenance system capabilities
- b. Soundness of technical approach and feasibility of design. This in particular will look into:
 - i. How the design criteria will be developed to achieve the performance objectives,
 - ii. How the propagation and interference analyzes are conducted
 - iii. How the test plan will support the NCR's objectives,
 - iv. The offeror's installation standards,
 - v. How the offeror intends to implement operations and maintenance services
- c. Project Management approach: to demonstrate its capabilities, the offeror will provide with the response to this RFP a project plan for evaluation purposes that will include:
 - i. A work breakdown structure, associated timelines and milestones
 - ii. Show how resources planning and resources availability are coordinated.
- d. Quality of workmanship and equipment: the offeror will emphasize;
 - i. The reliability of the key components of the system, as well as the integrated system,
 - ii. The availability of the system's equipment,
 - iii. The quality control procedures in place for the provisioning of the required services

M.3.3 Price Evaluation Criteria (50 Points total)

The price evaluation will be objective. The offeror with the lowest cost/price will receive the maximum points. All other proposals will receive a proportionately lower total score. The following formula will be used to determine each offeror's evaluated cost/price score:

$$\frac{\text{Lowest cost/price proposal} \times \text{weight}}{\text{Cost/price of proposal being evaluated}} = \text{evaluated cost/price score}$$

M.3.4 PREFERENCE (12 Points)

M.3.5 TOTAL (112 Points)



M.4. EVALUATION OF OPTION YEARS

The District will evaluate offers for award purposes by evaluating the total price for all options as well as the base year. Evaluation of options shall not obligate the District to exercise them. The total District's requirements may change during the option years. Quantities to be awarded will be determined at the time each option is exercised.

M.5. OPEN MARKET CLAUSES WITH SBE SUBCONTRACTING SET-ASIDE (SUPPLIES AND SERVICES)

M.5.1 Preferences for Local Businesses, Disadvantaged Businesses, Resident-owned Businesses, Small Businesses, Longtime Resident Businesses, or Local Businesses with Principal Offices Located in an Enterprise Zone Under the provisions of the "Small, Local, and Disadvantaged Business Enterprise Development and Assistance Act of 2005" (the Act), Title II, Subtitle N, of the "Fiscal Year 2006 Budget Support Act of 2005", D.C. Law 16-33, effective October 20, 2005, the District shall apply preferences in evaluating bids or proposals from businesses that are small, local, disadvantaged, resident-owned, longtime resident, or local with a principal office located in an enterprise zone of the District of Columbia.

M.5.2 Required Small Business Enterprise (SBE) Subcontracting Set-Aside

35% of the total dollar value of this contract has been set-aside for performance through subcontracting with businesses certified by the Small and Local Business Opportunity Commission (SLBOC) or the Department of Small and Local Business Development (DSLBD), as applicable, as small business enterprises. Any prime contractor responding to this solicitation shall submit within 5 days of the contracting officer's request, a notarized statement detailing its subcontracting plan. Once the plan is approved by the contracting officer, changes will only occur with the prior written approval of the contracting officer and the Director of DSLBD.

M.5.3 General Preferences

For evaluation purposes, the allowable preferences under the Act for this procurement are as follows:

M.5.3.1. Three percent reduction in the bid price or the addition of three points on a 100-point scale for a small business enterprise (SBE) certified by the Small and Local Business Opportunity Commission (SLBOC) or the Department of Small and Local Business Development (DSLBD), as applicable;



- M.5.3.2 Three percent reduction in the bid price or the addition of three points on a 100-point scale for a resident-owned business enterprise (ROB) certified by the SLBOC or the DSLBD, as applicable;
- M.5.3.3 Ten percent reduction in the bid price or the addition of ten points on a 100-point scale for a longtime resident business (LRB) certified by the SLBOC or the DSLBD, as applicable;
- M.5.3.4 Two percent reduction in the bid price or the addition of two points on a 100-point scale for a local business enterprise (LBE) certified by the SLBOC or the DSLBD, as applicable;
- M.5.3.5 Two percent reduction in the bid price or the addition of two points on a 100-point scale for a local business enterprise with its principal office located in an enterprise zone (DZE) and certified by the SLBOC or the DSLBD, as applicable; and
- M.5.3.6 Two percent reduction in the bid price or the addition of two points on a 100-point scale for a disadvantaged business enterprise (DBE) certified by the SLBOC or the DSLBD, as applicable.

M.5.4. Application of Preferences

The preferences shall be applicable to prime contractors as follows:

- M.5.4.1 Any prime contractor that is an SBE certified by the SLBOC or the DSLBD, as applicable, will receive a three percent (3%) reduction in the bid price for a bid submitted by the SBE in response to an Invitation for Bids (IFB) or the addition of three points on a 100-point scale added to the overall score for proposals submitted by the SBE in response to a Request for Proposals (RFP).
- M.5.4.2 Any prime contractor that is an ROB certified by the SLBOC or the DSLBD, as applicable, will receive a three percent (3%) reduction in the bid price for a bid submitted by the ROB in response to an IFB or the addition of three points on a 100-point scale added to the overall score for proposals submitted by the ROB in response to an RFP.
- M.5.4.3 Any prime contractor that is an LRB certified by the SLBOC or the DSLBD, as applicable, will receive a ten percent (10%) reduction in the bid price for a bid submitted by the LRB in response to an IFB or the addition of ten points on a 100-point scale added to the overall score for proposals submitted by the LRB in response to an RFP.



- M.5.4.4 Any prime contractor that is an LBE certified by the SLBOC or the DSLBD, as applicable, will receive a two percent (2%) reduction in the bid price for a bid submitted by the LBE in response to an IFB or the addition of two points on a 100-point scale added to the overall score for proposals submitted by the LBE in response to an RFP.
- M.5.4.5 Any prime contractor that is an DZE certified by the SLBOC or the DSLBD, as applicable, will receive a two percent (2%) reduction in the bid price for a bid submitted by the DZE in response to an IFB or the addition of two points on a 100-point scale added to the overall score for proposals submitted by the DZE in response to an RFP.
- M.5.4.6 Any prime contractor that is a DBE certified by the SLBOC or the DSLBD, as applicable, will receive a two percent (2%) reduction in the bid price for a bid submitted by the DBE in response to an IFB or the addition of two points on a 100-point scale added to the overall score for proposals submitted by the DBE in response to an RFP.

M.5.5 Maximum Preference Awarded

Notwithstanding the availability of the preceding preferences, the maximum total preference to which a certified business enterprise is entitled under the Act for this procurement is twelve percent (12%) for bids submitted in response to an IFB or the equivalent of twelve (12) points on a 100-point scale for proposals submitted in response to an RFP. There will be no preference awarded for subcontracting by the prime contractor with certified business enterprises.

M.5.6. Preferences for Certified Joint Ventures

When the SLBOC or the DSLBD, as applicable, certifies a joint venture, the certified joint venture will receive preferences as a prime contractor for categories in which the joint venture and the certified joint venture partner are certified, subject to the maximum preference limitation set forth in the preceding paragraph.

M.5.7. Vendor Submission for Preferences

- M.5.7.1. Any vendor seeking to receive preferences on this solicitation must submit at the time of, and as part of its bid or proposal, the following documentation, as applicable to the preference being sought:
- M.5.7.1.1. Evidence of the vendor's or joint venture's certification by the SLBOC as an SBE, LBE, DBE, DZE, LRB, or RBO, to include a copy of all relevant letters of certification from the SLBOC; or



M.5.7.1.2. Evidence of the vendor's or joint venture's provisional certification by the DSLBD as an SBE, LBE, DBE, DZE, LRB, or RBO, to include a copy of the provisional certification from the DSLBD.

M.5.7.1.3. Any vendor seeking certification or provisional certification in order to receive preferences under this solicitation should contact the:

Department of Small and Local Business Development
ATTN: LSDBE Certification Program
441 Fourth Street, N.W., Suite 970N
Washington, DC 20001

M.5.7.1.4 All vendors are encouraged to contact the DSLBD at (202) 727-3900 if additional information is required on certification procedures and requirements.

M.5.8 Subcontracting Plan

Any prime contractor responding to a solicitation in which there is an SBE subcontracting set-aside, shall submit, within 5 days of the contracting officer's request, a notarized statement detailing its subcontracting plan. Each subcontracting plan shall include the following:

M.5.8.1 A description of the goods and services to be provided by SBEs;

M.5.8.2 A statement of the dollar value of the bid or proposal that pertains to the subcontracts to be performed by the SBEs;

M.5.8.3 The names and addresses of all proposed subcontractors who are SBEs;

M.5.8.4 The name of the individual employed by the prime contractor who will administer the subcontracting plan, and a description of the duties of the individual;

M.5.8.5 A description of the efforts the prime contractor will make to ensure that SBEs will have an equitable opportunity to compete for subcontracts;

M.5.8.6 In all subcontracts that offer further subcontracting opportunities, assurances that the prime contractor will include a statement, approved by the contracting officer, that the subcontractor will adopt a subcontracting plan similar to the subcontracting plan required by the contract;



- M.5.8.7 Assurances that the prime contractor will cooperate in any studies or surveys that may be required by the contracting officer, and submit periodic reports, as requested by the contracting officer, to allow the District to determine the extent of compliance by the prime contractor with the subcontracting plan;
- M.5.8.8 List the type of records the prime contractor will maintain to demonstrate procedures adopted to comply with the requirements set forth in the subcontracting plan, and include assurances that the prime contractor will make such records available for review upon the District's request; and
- M.5.8.9 A description of the prime contractor's recent effort to locate SBEs and to award subcontracts to them.

M.5.9. Enforcement and Penalties for Willful Breach of Subcontracting Plan

The willful breach by a contractor of a subcontracting plan for utilization of local, small, or disadvantaged businesses in the performance of a contract, the failure to submit any required subcontracting plan monitoring or compliance report, or the deliberate submission of falsified data may be enforced by the DSLBD through the imposition of penalties, including monetary fines of \$15,000 or 5% of the total amount of the work that the contractor was to subcontract to local, small, or disadvantaged businesses, whichever is greater, for each such breach, failure, or falsified submission.